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# MINUTES AND PROCEEDINGS

OF THE

# Dental Faculties' Association of American Universities

1908-1924

MINNEAPOLIS
Published by the University of Minnesota

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# Dental Faculties' Association of American Universities

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## FINAL MEMBERSHIP

University of California
Columbia University
Harvard University
University of Illinois
University of Iowa
University of Michigan
University of Minnesota
University of Nebraska
Ohio State University
University of Pennsylvania
Tufts College
Washington University
Western Reserve University

## HONORARY MEMBER

Augustus S. Downing, Assistant Commissioner and Director of Professional Education

# FOREWORD

The former Dental Faculties' Association of American Universities, now merged in the American Association of Dental Schools, takes pleasure in presenting you with this copy of the *Minutes and Proceedings of the Dental Faculties' Association of American Universities* from its organization in July, 1908, to its dissolution in March, 1924, prior to its union with the American Association of Dental Schools.*

Your attention is especially invited to the historical sketch of the activities of the Association which precedes the minutes. The recently published synopsis of the forthcoming report of the Carnegie Survey of Dental Education gives unqualified commendation and support to the ideal of dental education in universities.

We quote from this synopsis as read by the director of the survey at the first meeting, in March, 1924, of the American Association of Dental Schools:

> Considered as a whole the practice of dentistry is, in effect, a combination of the arts of medicine and mechanics, largely on the basis of fine art, applied to the teeth and mouth directly. Oral (with correlative systemic) health-service is the fundamental purpose of the practice of dentistry. Mechanical procedures are its chief ways and means. Artistic oral restorations and reconstructions are its esthetic achievements.
>
> Medicine, mechanics, and art constitute the tripod on which the whole of modern dentistry rests. Pull away one of three legs of that tripod, and dentistry ceases to be itself. . . . .
>
> Antagonism between medicine and dentistry cannot be explained on any basis of public interest or advantage, and has no jurisdiction whatever in any sentiments that are worthy of respect.
>
> Dentistry is neither a political party nor a secret society. It is not an organization of dentists, conducted by dentists, for dentists. Dentistry is an accredited agency for public service, open to public inspection, subject to public regulation, and subservient to enlightened public opinion. . . . .
>
> Dental education is a function of universities. The most favorable conditions for instruction in dentistry are plainly those provided in the universities by cordial co-operation between teachers of dentistry, and those of the schools of medicine and engineering. Such co-operation insures the most effective teaching under the most advantageous circumstances for all concerned.

It is believed that, in view of the forthcoming report of the Carnegie Survey of Dental Education, publication of the *Proceedings of the Dental Faculties' Association of American Universities* is peculiarly timely. From its inception to its dissolution this body had as its chief aim the consummation of the ideal now so strongly set forth in the synopsis of this report, that is, raising dental education to the university plane with the ultimate aim of placing dentistry on a par with any other specialty in medicine.

ALFRED OWRE
EUGENE H. SMITH
CHARLES R. TURNER
*Committee on Minutes*

November 7, 1924.

* The minutes for the year 1908-17 were published in the *Dental Cosmos*.

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# HISTORICAL SKETCH

Early dental education in the United States was, unfortunately, left largely to its own devices. In the first years of the republic, dentists learned technique in a practitioner's office, sometimes supplementing this training with four- or five-month lecture courses in medical subjects such as anatomy, physiology, and materia medica. Most dentists, however, practiced without medical knowledge and without degrees. In 1839 the University of Maryland refused the request of two prominent Baltimore practitioners to establish a course in dentistry. Dissatisfied with existing conditions, these two men finally brought about the establishment, as an independent institution, of the Baltimore College of Dental Surgery, thus completing the divorce of dentistry from university ideals and standards. From this time, for perhaps seventy years, dental education followed the same general trend as medical education, which, it will be recalled, fell largely into the hands of commercial exploiters, until conditions grew so bad that the university trained men of the profession ultimately brought about a survey by the Carnegie Foundation in an effort toward betterment. This survey in medicine resulted, practically, in the extermination of the proprietary schools.

The situation in dentistry was complicated by the fact that in addition to being conducted for profit, dental education consisted largely in a purely mechanical training. Essentially, of course, dentistry is a specialty of medicine, on a par with, and requiring the same fundamental training as, rhinology, otology, ophthalmology, or any other recognized specialty. Fortunately, there was a growing non-commercial element in dental education, the university dental schools. In 1859 Harvard established a dental school; in 1875, Michigan; in 1878, Pennsylvania. (By 1921 two thirds of all dental schools in the United States were parts of state or endowed universities.)

In 1884 various schools of all types organized the National Association of Dental Faculties for the purpose of standardizing and regulating dental education. This body, sincere in its purpose, did a great deal toward bettering conditions. There was a great deal to be done. It was necessary, even at that relatively late date, to take very elementary steps toward betterment. At its first meeting it

> abrogated the prevailing custom of allowing five years of practice to be substituted for one session of college work, recommended the general adoption of a graded curriculum of two years, recommended the subjects of instruction, and declared itself in favor of an examination upon the rudiments of an "English education" for all candidates for admission. In 1889 a three-year course, of not less than five months each, was adopted to go into effect in 1891-92. Six month sessions were approved in 1894, and extended to seven months in 1899-1900. In 1901 a four-year course was projected for 1904-5 to accommodate the rapidly increasing subjects, but in 1904 this was rescinded in favor of a three-session course of thirty weeks each, as it was decided that the adoption of a four-year course had been a little premature. . . . .
>
> The National Association of Dental Faculties advanced the preliminary educational requirement, in 1897, to admission to a high school; and, in 1900, to admission to the third year of high school. In 1907-9, three years of high school were required.[1]

One by one, many of the university schools withdrew from the National Association of Dental Faculties. It was believed that rapid progress toward the university ideal in dental education could be made only by a disinterested group.

[1] C. R. Turner. *Dental Cosmos.* January, 1920.

For this reason the university dental schools, in 1908, brought about a conference of delegates from six university schools (California, Harvard, Iowa, Michigan, Minnesota, and Pennsylvania) to consider the advisability of forming an association of university dental schools. The first steps toward organization were taken at this meeting. The following year a permanent organization was effected, known as the Dental Faculties' Association of American Universities, with the avowed object of promoting higher ideals in dental education, of improving the standards of preliminary education required for admission to dental schools, and ultimately of establishing a national standard of dental education. An educational committee was appointed to take up and present for action these questions.

Hereafter until 1923 the Association held regular annual meetings, with several special meetings on matters requiring immediate action. At each meeting the report of the educational committee was discussed at length, and forward action taken. Other university schools whose standards met those of the Association were admitted to membership as they applied, until in 1923 the list was as follows: California, Columbia, Harvard, Iowa, Illinois, Michigan, Minnesota, Nebraska, the regents of the University of the State of New York, Ohio, Pennsylvania, Tufts, Washington, Western Reserve.

It was early recognized that there was urgent need for a disinterested survey of dental education such as had been made for medical education. At the third annual meeting, in 1911, the following resolution was adopted:

> That the Dental Faculties' Association of American Universities invite the Carnegie Foundation for the Advancement of Teaching to make an investigation of the educational conditions in the dental schools holding membership in this association, such as was made of the medical schools of the country.

Two years later, in pursuance of a suggestion made in the president's address, which was adopted *in toto*, the motion was extended to include all dental schools, regardless of university affiliation. In 1913 the president of the Association mentioned in his annual address the announced intention of the Carnegie Foundation to investigate dental education, and recommended that the Association send the Foundation its appreciation of this intention, and express a hope that the investigation be made at an early date. This was later adopted, and the secretary instructed to send such a communication. In 1920 a resolution was adopted again urging the Foundation to undertake a survey. The next year a resolution was sent to the president of the Foundation offering all possible assistance in such an investigation. The year following (1922) the survey was begun.

The assurance of an ultimate impartial survey was a great support to the Dental Faculties' Association in the stormy years which followed its organization. Naturally every forward movement met with opposition from the purely commercial element. Progress was also retarded by a high-minded but reactionary group which believed dentistry to be self-sufficient, without need of further alliance with medicine.

The first forward step was the establishment of a preliminary requirement of four years' work in a reputable high school for admission to dental schools with regulations governing admission of students applying for advanced standing. Next was the lengthening of the dental course to four years, the first year to include 600 hours of ancillary subjects. This was made obligatory in 1916. Obviously the next requirement was further to extend the course; and the Association bent its efforts in this direction. The exigencies of the war, with its practical demands on professional schools, retarded progress somewhat;

but, notwithstanding, a five-year course (four years of dentistry with a pre-dental academic year) was made obligatory in 1921. All schools of the Association, with one exception, established this course as then agreed. Contemporaneously a medico-dental course, the ultimate goal, was under consideration.

Other activities of the Association included the encouragement of scientific research in dentistry, the establishment of new undergraduate and graduate courses, and the standardization of dental curricula.

Following a suggestion made by Dr. William J. Gies, head of the Carnegie Survey of Dental Education, the four existent dental educational associations—the National Dental Faculties' Association, The American Institute of Dental Teachers, the Canadian Dental Faculties' Association, and the Dental Faculties' Association of American Universities—recently disbanded to merge in the American Association of Dental Schools.

It is suggested that anyone sufficiently interested in the trend of various movements in dental education during the critical fifteen years just passed to devote the necessary time to a reading of the appended minutes of the Dental Faculties' Association of American Universities, will find himself informed on many points which have of necessity been omitted from, or at best only touched on, in this sketch.

## PRELIMINARY CONFERENCE

On July 31, 1908, in Hotel Somerset, Boston, Massachusetts, a conference of the representatives of the dental schools of the universities of California, Harvard, Iowa, Michigan, Minnesota, and Pennsylvania was held for the purpose of considering the advisability of forming a faculties' association of the dental departments of American universities.

The draft of a proposed constitution and by-laws had been forwarded by Dr. James Truman, of the University of Pennsylvania, for presentation to this meeting.

After a careful consideration of the object for which the conference had been called, it was decided to resolve the meeting into a committee of the whole for the further consideration of a plan of organization.

Of this committee, Dr. J. G. Sharp, representing the dental department of the University of California, was, on motion, elected temporary chairman, and the committee then adjourned to meet at the call of the chairman.

## MEETING FOR PERMANENT ORGANIZATION

Pursuant to the resolution of adjournment, a meeting was called by the chairman at the Bellevue-Stratford Hotel, Philadelphia, Pennsylvania, at 9 a.m., June 5, 1909, for the purpose of effecting permanent organization.

The meeting was called to order at 10 a.m. by the temporary chairman, Dr. J. G. Sharp. University schools were represented as follows: California, Dean J. G. Sharp; Harvard, Dean E. W. Smith; Michigan, Dean N. S. Hoff; Iowa, Dean G. V. I. Brown; Minnesota, Dean Alfred Owre; Pennsylvania, Dean E. C. Kirk.

Dr. Edward C. Kirk was appointed secretary pro tem.

After receiving the credentials of delegates presented by Drs. Hoff, Sharp, and Brown, it was moved by Dr. G. V. I. Brown, and seconded by Dr. E. H. Smith, that the meeting proceed to form a permanent organization. The motion was carried.

The chairman, Dr. Sharp, submitted a form of constitution and by-laws embodying suggestions of the various members, which he had collated and arranged since the previous meeting, and on motion of Dr. Eugene H. Smith, duly seconded, it was resolved that such constitution and by-laws be read and, with such amendments as were necessary, be adopted article by article. The motion was carried.

After a revision of the proposed constitution and by-laws and the adoption of the same article by article, it was adopted as a whole.[2]

The meeting then proceeded to the election of permanent officers, with the following result:

*President*—Dr. J. G. Sharp
*Vice-president*—Dr. Eugene H. Smith
*Secretary-treasurer*—Dr. Edward C. Kirk
*Executive Committee*—Dr. J. G. Sharp, ex officio; Dr. N. S. Hoff, for one year, and Dr. G. V. I. Brown, for two years
*Educational Committee*—Dr. J. G. Sharp, ex officio; Dr. Eugene H. Smith, for one year, Dr. Edward C. Kirk, for two years, Dr. Alfred Owre, for three years

Upon motion it was voted that the sum of two hundred dollars be appropriated from the funds of the Association to pay for clerical service in connection with the duties of the secretary-treasurer for the ensuing year.

Upon motion the secretary-treasurer was directed to send to each of the members a bill for annual dues.

The secretary-treasurer was further directed to send a report of the organization of the Dental Faculties' Association of American Universities to the Associated Press, to foreign and domestic dental journals, to the National Commissioner of Education, to the Fédération Dentaire Internationale, to the secretaries of the several state universities, to the National Association of Dental Examiners, to the National Association of Dental Faculties, and to the National Dental Association.

There being no further business, the meeting adjourned.

## SECOND ANNUAL MEETING

The second annual meeting of the Dental Faculties' Association of American Universities was called to order at the Brown Palace Hotel, Denver, Colorado, July 18, 1910, by the president, Dr. J. G. Sharp.

Membership universities were represented as follows: California, Dean J. G. Sharp; Harvard, Dr. Waldo E. Boardman; Iowa, Dr. Richard Summa; Michigan, Dean N. S. Hoff; Minnesota, Dean Alfred Owre; Pennsylvania, Dean E. C. Kirk.

Visitors: Drs. R. H. Volland, R. H. D. Swing, W. F. Sharp, G. L. Bean, L. S. Millberry.

The secretary then read the minutes of the preliminary conference held at Boston, July 31, 1908, and of the meeting at Philadelphia, June 5, 1909.

On motion the minutes were approved.

The secretary asked for the official titles of each of the schools represented, with the following result: Harvard University, Dental School; University of Michigan College of Dental Surgery; University of California, College of Dentistry; University of Iowa, College of Dentistry; University of Minnesota, College of Dentistry; University of Pennsylvania, School of Dentistry.

The president read his annual address, as follows:

[2] See Appendix.

*Members of the Dental Faculties' Association of American Universities:* Organized as we are to promote higher standards of education in our profession, it naturally devolves upon a new organization to begin by eliminating the infirmities of the past in educational methods, and retaining and adding to those that are wholesome. In the effort, however, to promote the welfare of our profession along these lines, we must guard against the over-enthusiasm and consequent haste that so often land us in the pitfalls of our progress. We are organized for a noble purpose, and it is quite apparent, after a perusal of the voluminous amount of literature put forth in the past year on the subject which we have to consider, that there is need for such organization. We read much of the medical training for the dentist, and we read somewhat as to the methods pursued in many high grade dental schools being all that is required; however, whichever method prevails, as educators and as organized with a hope that our acts will bear fruit because of a sincere interest in our profession and the welfare of mankind, we must advance unfalteringly, slowly, yet apace with the demands made on us by humanity, and without losing sight of the fact that the results of our professional work at present are largely dependent upon our ability as mechanics, which factor will become less and less prominent as science, with resulting preventive measures, takes precedence over it. In the meantime, however, I think the present system will have to suffice, and that if one cares to become a stomatologist in the broadest sense of the word, after finishing a dental course he should further pursue medical studies. I here suggest two steps in dentistry, the mechanical first and the stomatological second.

Being organized for the purpose of offering a guaranteed basis of standardization for dental schools to our profession, by virtue of our members being controlled by the Association of American Universities, I believe we could increase the scope of our usefulness by extending the privilege of membership to such schools and universities as are on the accepted list of the Carnegie Foundation for the Advancement of Teaching, and to me it would seem advisable to so amend our constitution. It would be well at this point to quote from an article of Commissioner of Education Brown on the Carnegie Foundation. He says: "Because of its ability to give or withhold valuable grants, so that these grants will be made only to institutions of a certain academic grade, and because of a provision in the office of the foundation for the investigation of all institutions applying for such grants, this establishment has become one of the most powerful agencies for clearing up and unifying our standards in higher education." It would likewise be well to seek the assistance of this institution in clarifying the dental educational atmosphere, as it is now doing for the medical profession. Such assistance would further tend to secure foreign recognition of our dental schools and their graduates, and remove the stigma of dental board surveillance over them, and thus pave the way to interstate and foreign recognition of them.

The next step of importance which I feel should be brought up for consideration by this body is the addition of one year to our curriculum, making it four years. Our students at present are overcrowded, and further it seems desirable to broaden the field of scientific work in our schools; at the same time an effort should be made to produce greater uniformity of our curricula, as regards subjects to be taught and time for teaching them. This factor might be beneficial in establishing a national standard.

Some discussion arose at our last meeting as to the time and place of our meetings. To me it seems advisable that we should meet in conjunction with the National Dental Association. This would tend to enlarge our meetings, and likewise augment our activity in the National Association, in which we should become interested members. This Association, through a committee, should interview the commissioner of education in reference to the establishment of a professional advisory council in connection with the Department of the Interior, to discuss international educational problems with foreign nations through the Department of State, instead of as individuals. In so far as our standards suffer by comparison with those of foreign countries, they should be corrected, and vice versa. No real national standard can be brought about until such harmony exists. We would thus spread our influence in the cultured nations of the world, and wield a great influence in bringing about the establishment of a federal commission or examining board of proper educational attainments. In all these dental affairs of national and international importance this Association should be actively interested.

In reference to membership, if it is the wish of the members to include schools of the Carnegie accepted list, I would call attention to the University of Toronto Dental School, but as our organization is purely a national one, some special provision would have to be made to include schools in Canada.

It is worthy of mention that the Pennsylvania Dental College has become allied with the University of Pennsylvania and ceased to exist as a separate school—a commendable effort in promoting a good cause.

Further to increase the good results of our work, I believe we should act as far as possible in harmony with other educational factors, rather than appear to antagonize them, where

it can be done without in any sense lowering the bars of membership that offer protection to our profession. With this thought in mind it might seem advisable, where schools outside this Association are willing to comply with the regulations of this Association, that we indorse them for a period of three years, thus encouraging them to a desire to become a department of some university, standardized as are those that are members of this Association, which must be done within the three years or such indorsement be cancelled.

As the development of professional character in our graduates is one of the objects sought by dental schools of proper standing, I feel that we should lay special stress in the future on the matter of preliminary studies with the object of developing culture, upon which professional character greatly depends. This should be a prerequisite for matriculation into schools of such importance as those of the dental profession.

In conclusion, I wish to thank the members of the Association for extending to me the honor of being your first presiding officer, and as I give way to my successor it is with the wish that, with your assistance, he may so guide the affairs of the Association as to make our hopes a reasonable certainty, and meet the expectations of the dental profession.

It was moved that the discussion of the president's address be postponed until after the regular routine business had been disposed of.

Motion carried.

The secretary-treasurer, Dr. Edward C. Kirk, then read his report. He stated that a record of the preliminary meeting held in Boston, July 31, 1908, and of the meeting for organization held in Philadelphia, June 5, 1909, together with the constitution and by-laws adopted at the Philadelphia meeting, was prepared and published in the dental journals; also several hundred copies were printed in pamphlet form for distribution to dental educational authorities both in America and Europe. Copies were also sent to the national commissioner of education at Washington, to several of the state educational authorities, and to the educational authorities of the principal countries of Europe. Copies were furnished to interested individuals who applied for them.

Pursuant to his instructions, the secretary endeavored to secure a record of all matriculants in each of the colleges members of the Dental Faculties' Association of American Universities. Lists of matriculants for the session of 1909-10 were received from the deans of the dental schools of the University of Minnesota, the University of Michigan, the University of California, and the University of Pennsylvania.

In an endeavor to secure data upon which to base the conduct of a bureau of information pertaining to dental educational matters throughout the world, as provided in the constitution, the secretary, through correspondence and otherwise, endeavored to secure reports of boards of dental examiners, announcements of all dental colleges, copies of state laws, copies of the laws of foreign countries governing the practice of dentistry, and data relating to the condition and character of dental education in foreign dental colleges, with the result that a considerable mass of matter was already collected furnishing much valuable information. This was at the disposition of members of the Association desiring information in regard to the matters referred to.

The secretary reported further that he was able, on a recent visit to Europe, to present personally to dental educational authorities the purposes and ideals of the Association. He recommended that the Association participate as actively as possible in the meetings of the Fédération Dentaire Internationale.

The financial report was read.

The executive committee having no report, the next order of business was the report of the educational committee.

Dr. Smith, the chairman, being absent, Dr. Boardman presented his report, as follows:

As chairman of the Educational Committee of the Dental Faculties' Association of American Universities, I herewith suggest the following requirements for admission to the dental schools holding membership in this Association:

All candidates for admission holding a degree in letters, science, or medicine, from a recognized college or scientific school, or who have passed an examination for admission to any reputable college of letters, or who present diplomas from a four-years high school covering subjects hereinafter mentioned are to me admitted without an examination. Candidates presenting diplomas from reputable high schools must have passed examination in the following subjects:

English, physics, Latin or French or German, chemistry, algebra, and geometry.

All other candidates must have passed examinations in the following subjects to the value of sixteen units:

English, four units
Physics, including the laboratory course, two units
Latin, four units, or French or German and history, four units
Chemistry, two units
Algebra, one unit
Geometry, one unit

The foregoing subjects to be required in each case, the remaining units to be made up from the following electives:

Manual training, one unit
Solid geometry, one unit
Botany, one unit
Zoology, one unit
Anatomy, physiology, and hygiene, one unit
Woodworking, one unit
Blacksmithing, one unit
Chipping, filing, and fitting, one unit
Machine work, one unit

I would further suggest that our committee recommend that the schools holding membership in the Dental Faculties' Association of American Universities shall not accept the work done in other dental schools outside of the Association, nor admit the students from these schools to advanced standing, unless the schools have a course of nine months, in which case we will allow the time only. Each student must present a certificate of having had the preliminary training equal to the requirements of the schools of our Association, and be required to pass all of the examinations in the regular course.

In regard to the number of conditions allowed for matriculation, I would suggest that two units be the maximum number on which to admit a student.

In regard to the standing of foreign dental schools, I have had time only to investigate the status of the Russian schools, and find as follows:

That all of the universities in Russia are governed by the Ministry of Public Instruction and its agents; that the medical faculties of the Russian universities have no course in dentistry, but that dentistry is taught in special dental schools. After finishing the course at the dental schools, the students are obliged to pass an examination at one of the four universities in Russia—that is, St. Petersburg, St. Vladimir, Kazan, and Kharkow.

The maximum preliminary training for a student in dentistry in Russia is the equivalent of two years in an American high school; that is, six classes in a Russian gymnasium. Eight classes are required for a student in medicine. The maximum length of time required to obtain a certificate from a dental school is two and one-half years, or five semesters of four months each.

I would suggest that our committee recommend that the schools holding membership in the Dental Faculties' Association of American Universities require a candidate for admission who has been trained in Russia to present a certificate of eight classes of a Russian gymnasium, or make up the equivalent of two years in our American high schools, that he be allowed but one year's time, and be required to pass all of the examinations of our three years before becoming a candidate for our degree.

Respectfully submitted,
EUGENE H. SMITH, *Chairman.*

On motion, the report of the educational committee was received and placed on the minutes.

The president's address was then taken up for discussion. The first point of the address, that of the standard of admission to the Association based on the accepted list of the Carnegie Foundation for the Advancement of Teaching, was discussed at length by Drs. Hoff, Kirk, Sharp, and Owre, after which Dr. Kirk presented the following resolution:

WHEREAS, The Carnegie Foundation for the Advancement of Teaching has done more than any other organization in determining and maintaining a proper standard of entrance requirement for admission to colleges and universities; and

WHEREAS, The investigation that has been and is being conducted in medical educational institutions, with regard to admission requirements and facilities for giving instruction, has done much to elevate the standards of medical education; therefore be it

*Resolved,* That schools or colleges of dentistry that are an integral part of and under the direct supervision of universities accepted by the Carnegie Foundation for the Advancement of Teaching may be eligible to hold membership in the Dental Faculties' Association of American Universities.

Dr. Owre seconded the resolution with the understanding that the amendment to the by-laws made necessary by this resolution lie over for final action until the next annual meeting.

The resolution was adopted.

Dr. Kirk presented the amendment to the by-laws, as follows:

To amend Article III, Section 1, of the constitution and by-laws:

*After the word* "Universities," *insert the words* "or accepted by the Carnegie Foundation for the Advancement of Teaching."

With reference to the suggestion of an advisory council for the purpose of harmonizing the educational standards of America and of foreign countries, Dr. Hoff moved that this question be left in the hands of a committee consisting of Drs. Kirk and Smith, with Dr. Sharp ex officio. The motion was duly seconded and carried.

The suggestion in the president's address with reference to a four-year curriculum was discussed, and Dr. Owre presented the following resolution:

*Resolved,* That the educational committee be instructed to take up for consideration the question of the addition of a fourth year to the dental curriculum, as suggested in the address of the president, and submit a report thereon at the next general meeting of the Association.

The motion was carried.

It was voted that the president's address be accepted and placed on file, with the thanks of the Association for its very admirable character.

The report of the secretary-treasurer was called up for action, and Dr. Owre moved that the report be accepted, and that the thanks of the Association be extended to the secretary-treasurer for the very efficient service rendered.

Motion carried.

Dr. Kirk, in speaking of the activities of the Association, thought it desirable that the Association should get into closer touch with the Fédération Dentaire Internationale, as the Fédération had for its aim the harmonizing of educational standards of the world, and also the raising of the educational standards for dentistry.

Dr. Owre moved that the Association apply for membership as a body in the Fédération Dentaire Internationale.

Motion carried.

The secretary asked for suggestions with regard to making public the activities of the Association, and Dr. Owre moved that that be left to the discretion of the secretary-treasurer.

Motion carried.

Dr. Kirk spoke of the Pennsylvania College of Dental Surgery's surrendering its charter because of its inability to continue as an educational institution under the present conditions without lowering its educational requirements.

Dr. Owre moved that Drs. Kirk and Hoff be appointed a committee to draw up resolutions regarding the discontinuing of the Pennsylvania College of Dental

Surgery, and that the resolutions be spread on the minutes of the Association and copies of the resolution be sent to the faculty of the Pennsylvania College.

Motion carried.

The meeting adjourned.

At the afternoon session the report of the educational committee was brought up for discussion.

Drs. Kirk, Sharp, Hoff, Owre, and Summa discussed the question of the prescribed preliminary educational requirements suggested by the educational committee for entrance into the schools of the Association, and Dr. Kirk moved that this portion of the report be referred back to the committee for further elaboration, with the suggestion that the committee obtain from each of the institutions the different educational requirements, the preparatory work required, the value of the counts from each institution, etc., and that the committee at the next meeting bring in recommendations of a plan by which the unification of the several standards of value may be realized.

Motion carried.

The next portion of the report taken up for discussion was the number of conditions that the matriculant may carry on entering a school.

After some discussion, Dr. Kirk moved that this question also be referred back to the committee and included in the original motion.

Motion carried.

The next portion of the report considered was the recommendation with regard to the acceptance of Russian students; it was moved that that portion of the report be adopted.

Motion carried.

Dr. Summa then moved that the report of the educational committee be accepted as a whole.

Motion carried.

Dr. Sharp presented a number of reports on foreign dental schools, and Dr. Summa moved that they be referred to the Committee on Education for the information of said committee.

Motion carried.

Officers for the ensuing year were elected as follows:

*President*—Dr. J. G. Sharp

*Vice-president*—Dr. Eugene H. Smith

*Secretary-treasurer*—Dr. Edward C. Kirk

*Executive Committee*—Dr. J. G. Sharp, ex officio. Dr. Richard Summa, for one year, and Dr. N. S. Hoff, for two years

*Educational Committee*—Dr. Edward C. Kirk, for one year, Dr. Alfred Owre, for two years. Dr. Eugene H. Smith, for three years, and Dr. J. G. Sharp, ex officio

*Advisory Council*—Dr. J. G. Sharp, ex officio, Dr. Edward C. Kirk, Dr. Eugene H. Smith

At the suggestion of the president, the Association then listened to a presentation of the question of dental legislation in California, presented by Dr. Millberry, but no official action was taken in regard to this question.

The meeting adjourned.

## THIRD ANNUAL MEETING

The third annual meeting of the Dental Faculties' Association of American Universities was called to order, March 8, 1911, by the president, Dr. J. G. Sharp, at the Burkley Hotel, Iowa City, Iowa.

Membership universities were represented as follows: California, Dean J. G. Sharp; Harvard, Dean Eugene H. Smith; Michigan, Dean N. S. Hoff; Iowa,

Dr. W. S. Hosford; Minnesota, Dean Alfred Owre; Pennsylvania, Dean E. C. Kirk.

Visitors: Drs. Henry Morrow, H. C. Pelton, E. A. Rogers, Richard Summa, R. H. Volland.

The minutes of the last meeting were read and approved. The president, Dr. J. G. Sharp, read his annual address, as follows:

*Mr. Chairman and Members of the Dental Faculties' Association of American Universities:* In view of the fact that our actions speak more forcibly than our words, my report will necessarily be very brief. We are now firmly organized, and what is more, under the most favorable conditions—having established a definite preliminary standard for our members, to be increased as future requirements shall indicate. We have likewise adopted the strongest means at our command up to the present time to guarantee those standards. We should now seek further to strengthen this guarantee and to harmonize and improve the curricula in the different schools. My strongest criticism of all progressive schools at the present time would be that the scientific courses have so increased as materially to infringe upon those devoted to technics, whereas both scientific and technical courses should be increased. This condition can and must be adjusted between ourselves before we can enter upon the final step in our work—that of establishing a standard which will meet the needs of the public, gain the approval of the profession, and ultimately act as a basis upon which the educational authorities at Washington can establish a national standard, which possibly may lead to interstate and international reciprocity.

Dr. Kendrick C. Babcock, expert on higher education of the Bureau of Education, was expected to be with us today, but I regret having just received a letter from him stating that he is detained at Cambridge and cannot be present at our meeting. It is also to be greatly regretted that up to the present moment I have received no response from Dr. Pritchett, of the Carnegie Foundation, to questions regarding the relationship of dental schools to their universities in cases where these universities are on the accepted list of that institution. I am informed, however, by our own recorder of faculties that such universities were accepted without reference to the standing of their dental schools. If our own educational committee is not differently informed on this point, it would seem that we could not at present consider such dental schools for membership in this Association, nor until such time as the Carnegie Foundation has definitely set its standard for such schools, which in response to a previous letter President Pritchett expressed a willingness to do, provided the request for such assistance is sufficiently urged upon him. Since the work in which we are engaged is one based solely upon the welfare of the public, I strongly urge upon the members of our Association that we take steps to enlist the services of that Foundation in this work, not necessarily as college men, but as individual members of the profession. From our intimacy with this class of educational work we are the first, or should be the first, to recognize our weaknesses, and should therefore adopt the most direct means for correcting them. This Foundation is such a means; its independence assures its safety as a standardizing agent and it can aid us materially in our progress. By thus keeping faith with the public and our profession, we shall receive the unqualified support of both, and at the same time maintain a proper standard of self-respect—both of which are quite important in carrying on our work. That this is true is evidenced in many ways—first, in the report of the committee of the Stomatological Section of the American Medical Association appointed to advance the standards of dental schools, in which it says, "The Dental Faculties Association of American Universities should be given all possible aid in the work in which it is engaged." Such an expression of confidence in our organization certainly leaves no doubt in our minds, if any ever existed, as to the largeness of our responsibility. Secondly, the need for strenuous measures to improve conditions could not be more forcibly shown than in the report of the committee on the address of the president of the National Dental Association at its meeting held in Denver last July. It says, "It is manifestly true that in the special department of education with which we are immediately concerned there is crying need for reform." Further, no matter in which direction we turn, we hear individual expressions condemnatory of dental schools—many based upon ignorance, to be sure, but with enough truth in all to justify some radical improvements.

As our success in advancing the educational standards of our profession is largely dependent upon outside support, I think publicity of our deliberations and actions should be encouraged, and hence would suggest that from time to time, or at each meeting of this body, we invite to meet with us in an advisory capacity, as individuals or as members of some state or national educational department or educational committee, men who have no college affiliations but who are nevertheless closely allied with this work.

In my last report to this Association, I expressed some words of caution against a too hasty action on matters that should first receive the fullest consideration. I make this

reference, as it is my belief that this Association acted too hastily in the matter of joining the Fédération Dentaire Internationale as a body. An institution as young as this one, I believe, should be absolutely free to shape its own course without being hampered by attachment to rules governing any other association. I therefore recommend a reconsideration of our former action in this matter, since our influence in international affairs will be vastly greater after we have laid claim to a national standard and have justified it by our actions.

In view of the fact that we were disappointed in not having had a representative of the commissioner of education with us today, I feel that the Advisory Council should instruct him as to our organization, its aims, and the deliberations of this meeting, or that said council interview him, that we both might be benefited by such a conference and the gates opened for a federal consideration of our professional educational standing.

I wish to congratulate the Association upon its wise decision as to holding its meeting in the different colleges. In studying the conditions existing in Iowa University Dental School during the two days we have already been here, I feel that we have all been greatly benefited, and that such intimacy with the actual workings of our members while in session will bring about an earlier adjustment of harmony in our curricula, and be equally important from the standpoint of pedagogy. Since there are twenty-two universities in the Association of American Universities, and only six of these have dental schools, it might be well for our college association to lay the educational status of dentistry before that association, showing that it is quite worthy of university consideration. It would thus encourage those in authority in these universities favorably to consider dental education, and to lend a favorable ear to the overtures made to them by dental schools now in existence, for becoming part of such universities. All standardized universities should be so informed.

Believing that a consideration of, and favorable action on, the suggestions that are herein set forth would constitute the first and a perfectly consistent step of this Association following its organization toward reaching the goal it covets, namely, that of making the dental school in every instance a public benefactor and discouraging the possibility of any being the object of public benefaction, I wish in closing to thank you all for the energy each member has devoted to the cause for which our organization stands. Its roots have taken a firm hold, and it will only be through the acts of its own indiscretion that its progress will be retarded.

The next order of business was the reading of the report of the secretary-treasurer.

The secretary reported that, pursuant to his instructions at the last previous meeting, he had forwarded to the dean of the Pennsylvania College of Dental Surgery a resolution commending, for the Association, the action on the part of that institution in discontinuing its courses of instruction rather than taking the alternative of lowering the standards of instruction.

A communication was read from a Japanese dental school asking admission for its graduates to the third year of the course of dental schools in the Association.

A financial statement was presented. It was voted, on motion, that both reports be received.

The executive committee having no report, the next order of business was the report of the educational committee. The chairman, Dr. Eugene H. Smith, presented the following report:

*Mr. President and Members of the Dental Faculties' Association of American Universities:*
Your committee on education begs to submit the following report as the result of its deliberations on the questions referred to this committee:

Your committee has carefully considered the question of adopting a more uniform standard of preliminary educational requirements and one to which the various count systems now in use can be readily adjusted. We have also considered it advisable to add to the present requirements for matriculation a knowledge of elementary chemistry. As the result of our deliberations we beg leave to submit the following recommendation for your consideration:

We recommend to the Association that the minimum standard of four years' high school education now required for admission to the schools of this Association shall be as defined by the regents of the University of the State of New York, this to include one year of work in chemistry; the requirement in chemistry to take effect in 1912-13.

The attention of the committee has been called to the fact that the regents of the state of New York issue a special dental certificate on examination, but the committee suggests that the scope of examination for the special certificate be further investigated before the

schools of this Association accept such certificates as covering the preliminary educational requirements.

*Four-year curriculum.*—Your committee has carefully considered the advisability of adopting a four-year curriculum, and as the result of its deliberations we deem it inexpedient at the present time to adopt an obligatory four-year curriculum. We, however, recommend the adoption of an elective four-year course, the Association to prescribe what subjects are to be pursued in the fourth year.

*Standardization of curricula.*—With reference to standardizing the curricula of the schools of this Association, we have been unable to formulate any definite plan to this end, but recommend that steps be taken to standardize the curricula of the schools, and we also recommend that this question be referred back to the educational committee, or a special committee appointed for the purpose, for further consideration.

*Conditions of matriculates.*—As to the number of conditions which a matriculate may be allowed to carry on entrance to the schools of this Association, we recommend that this be left to the discretion of the different schools.

Respectfully submitted,

EUGENE H. SMITH, *Chairman,*
ALFRED OWRE,
EDWARD C. KIRK,
*Committee.*

Motion was made and carried that the report be received, and opened for discussion later.

The meeting adjourned until 2:30 p.m.

At the afternoon session the question of the final adoption of the resolution presented at the last meeting on the eligibility of schools and colleges which were integral parts of universities accepted by the Carnegie Foundation for the Advancement of Teaching, for membership in the Association was taken up for final action. After considerable discussion the resolution was finally adopted in the following form:

Article III, Section 1. The membership of this Association shall be limited to dental schools which are an integral part of state universities or of chartered universities of equal standing of the United States of America holding membership in the Association of American Universities, or accepted by the Carnegie Foundation for the Advancement of Teaching, demanding graduation from accredited high schools, that require not less than four years of high-school work, or the equivalent amount of education, for matriculation.

The question of the standardization of dental schools or the establishing of a standard curriculum for dental schools was taken up for discussion. It was decided that this was the work of the educational committee, and Dr. Kirk moved that the Advisory Council be done away with and its work merged with that of the educational committee. The motion was carried.

It was moved and carried that the president's address be taken up for consideration.

The first recommendation in the president's address was that relating to the standardization of the curricula of the schools of the Association; it was decided that that question be referred to the educational committee.

The question of the investigation of educational institutions by the Carnegie Foundation for the Advancement of Teaching was discussed at length by Drs. Owre, Sharp, Summa, Hoff, and Kirk, after which Dr. Owre moved, and Dr. Smith seconded—

That the Dental Faculties Association of American Universities invite the Carnegie Foundation for the Advancement of Teaching to make an investigation of dental schools holding membership in this Association, such as was made of the medical schools of this country.

Motion carried.

The question of the action of the Association at its last meeting in applying for membership in the Fédération Dentaire Internationale was taken up for reconsideration. The subject was discussed at some length by Drs. Owre, Smith,

Sharp, Hoff, Summa, and Kirk, after which it was moved and carried that the former action of the Association in applying for membership in the Fédération Dentaire Internationale be rescinded, and that the application for membership be withdrawn.

The secretary was instructed to inform the Fédération of this action, and to present as the reason therefor the feeling of the Association that it was inadvisable at this time for the Dental Faculties' Association of American Universities to affiliate itself with any other body, as it was thought that the Association could better perform its work by occupying an entirely neutral ground in relation to other organizations.

The next question considered was the recommendation by the president that the Association of American Universities be asked to take up and consider the question of dental education, with a view to encouraging the dental schools of the country to the adoption of a higher standard of preliminary educational requirements. The subject was discussed by Drs. Sharp, Owre, and Kirk, after which it was moved, and carried that the president be requested to pursue this matter at his discretion with the Association of American Universities.

Dr. Sharp called attention to the fact that there were two universities, members of the Association of American Universities, whose dental schools were not members of the Dental Faculties' Association of American Universities, and whose educational standards were such as to make them ineligible to membership in the D. F. A. of A. U., and asked if the Association should take cognizance of that fact.

It was moved and carried that similar authority be given to the president to take action at his discretion in calling the attention of the Association of American Universities to this matter.

The president's address was adopted as a whole.

The report of the secretary-treasurer was then taken up for consideration.

The question of the recognition of the Tokyo Dental College by the Association was, on motion, referred to the educational committee.

It was moved and carried that the report of the secretary-treasurer be accepted and adopted as a whole.

The report of the educational committee was next taken up for consideration and action. The recommendation of the committee to the effect that "the minimum standard of four years' high-school education now required for admission to the schools of this association shall be as defined by the regents of the University of the State of New York, this to include one year of work in chemistry, the requirement in chemistry to take effect in 1912-13," was discussed by Drs. Hoff, Smith, Kirk, Summa, and Sharp, after which it was moved and carried that this recommendation be adopted.

The recommendation of the educational committee with reference to the extension of the graduate phase of instruction in lieu of adopting a four-year curriculum at the present time was, on motion, adopted.

The report of the educational committee was adopted as a whole.

Election of officers for the ensuing year resulted as follows:

*President*—Dr. J. G. Sharp
*Vice-president*—Dr. E. H. Smith
*Secretary-treasurer*—Dr. E. C. Kirk
*Educational Committee*—Dr. Alfred Owre, for one year, Dr. E. H. Smith, for two years, Dr. E. C. Kirk, for three years, and Dr. J. G. Sharp, ex officio
*Executive Committee*—Dr. N. S. Hoff, for one year, Dr. W. S. Hosford, for two years, and Dr. J. G. Sharp, ex officio

The Association adjourned until the next annual meeting.

# FOURTH ANNUAL MEETING

The fourth annual meeting of the Dental Faculties' Association of American Universities was called to order January 22, 1912, at 10:30 a.m. by the vice-president, Dr. Eugene H. Smith, at Ann Arbor, Michigan. Membership universities were represented as follows: California, Dr. Fred E. Hart; Harvard, Dean Eugene H. Smith; Iowa, Dean W. S. Hosford; Michigan, Dean N. S. Hoff; Minnesota, Dean Alfred Owre; Pennsylvania, Dean E. C. Kirk.

Visitors: Drs. R. W. Bunting, E. T. Darby, L. P. Hall, E. T. Loeffler, C. J. Lyons, Henry Morrow, F. H. Orton, and M. L. Ward.

Inasmuch as the minutes of the previous meeting had been printed and distributed among the members it was voted that the reading of the minutes be dispensed with.

The annual address of the president, Dr. J. G. Sharp, was read by the secretary as follows:

*Members of the Dental Faculties' Association of American Universities:* I most sincerely regret that circumstances make it impossible for me to meet personally with you on this, the occasion of our fourth annual meeting. However, Dr. Fred E. Hart has been appointed by the president to represent the University of California, and he carries with him the good will and greetings from the members of our faculty to their co-workers in our Association. It is with a longing interest that we look forward to his return to California, and to a report of great strides of progress contemplated for the coming year, together with one of a clean bill of health for the year that has just closed.

I must remind you that as our labors in the matter of education have placed us in the rôle of public servants, it is incumbent upon us to proceed cautiously, and always with a thorough understanding that we must do our full duty and render a complete and honorable report to the profession and the people in whose interest the work of this Association is being carried forward. Not only should we strive to submit a creditable report of our own actions, but it should be the object of our Association to invoke the aid of all other possible factors to promote the same cause, to discourage stagnation, and to condemn retrogression.

It is quite apparent from only a casual glance at the literature on the subject of dental education that has appeared during the past year that the entire dental profession is not in accord with the principles of high standards for our profession, and in this respect this Association may even be said to have some bitter enemies. These little obstacles to an upward path, however, are easily brushed aside by a clear conscience and the evidence of respect and confidence from many other quarters, which latter should give us cheer and make us feel that high standards are not altogether a forlorn hope. In making this statement I wish again to remind you all that it will be well for us to keep in mind the fact that there is one centralized educational body in our government to which we may look for guidance in carrying on our work, and through which our afore-mentioned report to the profession and the people should be rendered.

From the interesting reading we have had in the last year or two on the subject of dental education one good and wholesome conclusion that we may reach is, that this topic is wide open, and if our Association accomplishes nothing more for the next five years, it should keep it so, if possible. Let us refrain from going into executive session or forming committees of the whole, to discuss problems that might offend the delicate senses of some, and let us enlighten the minds of those who are eager for knowledge on this subject. Let us refrain from being swayed in our deliberations because we fear the criticism of our enemies, and, if perchance this Association is at present, or ever should become, the highest dental organization in this country, let us individually and collectively accept its glory in dignified quietude, as the just deserts of an honest effort, without a pat on our own back and a shake of the left with the right. In a recent article, published in the *Items of Interest,* entitled "Dental Educational Prognathism," the author mentions as one of the factors responsible for low professional standards the dental college body. My impression is that this statement is perfectly correct, and a truth that is generally accepted by most educators, but not so generally admitted. Framed in different language and based upon my interpretation of it, we have practically the same charge brought against the dental schools of our country in the report of the Dental Educational Council of America, composed chiefly of men thoroughly conversant with educational affairs in this country. We are reminded very much, as a matter of fact, in this whole matter of dental colleges, of a diseased patient who knows his symptoms and diseases, but hesitates to tell them to the doctor or even consult one for fear of having his suspicions verified,

or because of the drastic treatment that might be applied. So let us all unite, go to the doctor, and be cured! Even if he lops off a finger or two that cannot be cured of its canker, I believe the cleansed body educational will be more fit to carry on its work and command far more respect than has generally been accorded it. I have in mind two good doctors, if we can only make up our minds to visit them—the Carnegie Foundation and the Department of Education at Washington.

As to the organization of an educational council, I am thoroughly in accord with the principle and ideals which call for its establishment. To secure, however, the greatest amount of good from such a body, or to give it any standing at all as a national body, it should work in co-operation with the Bureau of Education at Washington, and possibly should be appointed by that department, and not by any self-constituted organization within the profession. Since the United States government has taken the initial step in this very matter of professional education, by the appointment of a special commission, I believe it would not be presumptuous on our part to request this commissioner to call such a conference, or tender him our services in establishing one, that he might participate in our professional educational affairs. From him, the council would receive material aid in exchange for what assistance it might render him, but such a council should be thoroughly representative of all the dental educational bodies of the country. I recommend action of this nature by this body.

Our organization has already recommended that the Carnegie Foundation establish a preliminary standard and guarantee of such standard for the schools of this Association. Since that action was taken, however, the Dental Educational Council of America has rendered its report to the National Association of Dental Faculties, in which it sets forth, through its president, I believe, the value of the Carnegie unit system and the standardizing of many educational institutions. With this additional stimulus for uniformly high and secured standards, this Association should extend the scope of its previous action, and request the Foundation to consider the question of standardizing all dental schools, regardless of the organization with which they may be affiliated. By such an alliance, as it were, with the Bureau of Education and the Carnegie Foundation, the question of the demise of weak dental schools would not enter into the establishment of proper standards, but such schools would be given the opportunity of improving, until they would soon become standardized and accepted into the fold on an equal educational footing with accepted schools. By such a method of standardization of our schools, there will be no need of such college organizations as this, except merely as a conference body, such as the Institute of Dental Pedagogics, and a positive minimum standard would be established, sanctioned by the highest disinterested educational bodies in our country.

Having just received a letter from the Tokyo Dental College, I refer it to this body, that its contents may be considered. As set forth in this letter, the standard of the school in question is equivalent to that of our own schools, and apparently is approved or controlled by the Japanese imperial government. I should recommend that we refer this matter for verification to the Educational Department at Washington, and, if it is approved, that the graduates of the Tokyo Dental School be given proper credit. I wish to state in this connection that at present a graduate of that college is in attendance in our school as a special student, and is doing most excellent work. The Japanese with us have generally made good students.

Another question for consideration by this body is the preliminary requirements as applied to the University of Iowa, which requests that physics be accepted as a substitute for chemistry. If, by such a substitution, the standards of our organization are not in any wise lowered, I cannot see why such a change cannot be allowed, provided the course in physics be fully the equivalent of the present requirements in chemistry. In connection with this matter, I wish to add that with us in California the condition is very similar, it oftentimes being necessary for applicants holding a high school diploma from our schools to make up this subject, or to carry it as a condition.

I believe students entering our schools should do so through precisely the same channels as those by which they enter any other college or university. I speak of this matter and make such recommendation because, regardless of how fairly examinations are conducted by a specially appointed examiner, such a college is still exposed to much criticism, which reflects in turn upon any organization of which such a college is a member. This question should be fully discussed and recommendations made at this meeting.

In the transferring of students from one college to another listed in our Association, I see another topic for consideration, for in my opinion such a transference is generally occasioned by a student's failure to have attained a satisfactory grade in the college from which he is transferred, although having reached a passing mark. In such cases, I am sure the best interests of the student and all concerned are accomplished by compelling him to continue his work in a place where his faults are best known. Pursuing such a belief, I should recommend that, in being transferred, a student should be specially recommended, unless in the opinion of the school which he is leaving the transference is necessitated by some other very important and unavoidable cause. That a school should admit to advanced standing students who barely

wriggle through a lower class in another school is unjust to the students, the college profession, and the public.

Since the members of this Association are essentially concerned in building up the profession of dentistry by properly equipping men to enter it, we should take full cognizance of the excellent work that is being done in the educational line through other sources. I refer particularly to that of the National Hygiene Association. While we as an association may not be in a position to offer any material assistance along this line, yet we should use our individual efforts in carrying it to a successful issue. To me this task, more than almost anything else, commends our own work to the greatest possible consideration, for it shows the necessity for graduating men from our schools of such mental attainments that they in turn will be able to carry on this great work of public health.

In closing my report, I wish to remind you that no matter what efforts you put forth or what sacrifices you may make, you will hear the voice of criticism and denunciation shouting at your back and exerting every influence to divert you from your course, and stay the power for advancement held in your hands. If the criticisms which have been made have struck the mark, and cannot be removed by means of the agencies I have suggested in this report, then we may rightfully be considered as being misplaced in educational work. I retire from the presidency of this Association today with a feeling of deepest gratitude to all its members for the staunch support which each has given in its work. I cherish the friendships it has made, and as I have heard it said many times that one never accomplishes anything that is worth while without making enemies, I even appreciate the enemies.

Being deeply appreciative of the trust you have reposed in me by making me your president, I cannot help but feel, with the advancement of our profession at heart, that the goal toward which we are struggling will be far sooner reached in the hands of my successor, whose broader and deeper knowledge of educational matters will be more far-reaching in its influence in bringing about the much desired standard for our profession.

The request for recognition from the Tokyo Dental School was next taken up for consideration, and a letter from the dean, Dr. Chiwaki, was read.

Dr. Kirk moved, and Dr. Owre seconded, that this matter be referred to the educational committee, with instructions to take up the consideration of the subject with the Department of Professional Education at Washington, and if the representations made in the letter of the dean of the Tokyo Dental School are found to be substantially correct and in accordance with the facts, that this Association accord to the graduates of the Tokyo Dental School advanced standing in the senior year in the schools of this Association.

The motion was discussed and carried.

With regard to the transfer of students from one school of the Association to another, as considered in the president's address, after some discussion of the matter, it was voted that this body recommend, in all such cases, that the dean of the school transferring the student shall send with the transfer a letter giving full particulars as to the general character and value of the man and his work, and shall also state whether the student has been honorably dismissed.

The meeting adjourned until the afternoon session.

At the afternoon session the question of the work of the National Mouth Hygiene Association was taken up and discussed, but no action was taken thereon. It was the sense of the Association, however, that the question of educating the public, and especially high school students, in the necessity and advantages of dentistry, and the opportunities presented to young men in entering dentistry as a profession, could best be promoted in an individual way by the members of the Association, rather than by the Association's taking an active part in the work of the National Hygiene Association.

On motion the address of the president was adopted as read, with the recommendations made therein.

The next order of business was the report of the secretary-treasurer.

The secretary reported that in accordance with the action taken by the Association in 1910 he had withdrawn the application of the Association for

membership in the Fédération Dentaire Internationale. This he had had an opportunity to do verbally at the London meeting.

The secretary urged a revision of the question of certification to advanced standing in schools of the Association, with a view to securing a certificate sufficiently detailed to be acceptable to all schools in the Association.

He further requested a revision of the provision in the constitution (section 4, Article V) which required the secretary to keep a detailed list of all matriculants in membership schools, and to furnish such lists to deans of the membership colleges within sixty days after the opening of the college. Practical difficulties in the way of securing such a record, and its questionable utility, made a revision desirable.

The financial report was then submitted.

The question of exchange of certificates of schools within the Association was discussed again, and the matter considered settled as agreed upon in the consideration of the president's address.

With regard to section 4, Article V, of the constitution and by-laws, as referred to in the secretary's report it was voted that this be stricken from the constitution and by-laws.

It was voted that the report be adopted.

Dr. Smith, chairman of the Committee on Education, reported as follows:

The committee was to report upon the Tokyo school, but as that matter has been considered before the body as a whole, and has been referred back to the educational committee, we have no further report to make.

The report of the educational committee was approved.

Dr. Hosford called attention to the resolution passed at the last meeting inviting the investigation of the teaching methods of the schools of the Association by the Carnegie Foundation for the Advancement of Teaching, and asking if any action had been taken on the resolution.

The secretary reported that, through an oversight, the substance of this resolution had not been transmitted to the Carnegie Foundation, but that he would proceed to send the resolution to the Foundation at the earliest possible date.

Dr. Hosford asked if any action had ever been taken by the Association in regard to accepting students from schools which were not members of the Association.

The records of the Association did not show that any specific action had been taken on this question, and after some discussion, Dr. Hosford, seconded by Dr. Owre, presented the following motion:

*Resolved,* That students from American schools not holding membership in this Association may be admitted to schools holding membership in this Association, providing their preliminary training is equal to the training required of students seeking admission to our university schools, and that they be given credit for the time they have spent in dental study, but that no credit be given for any professional subject they may have taken in that school; also that they must pass examination in all subjects of the required course.

The motion was carried.

The question of uniformity of curriculum was discussed, and in this connection Dr. Hoff announced that he had prepared a statement of what was taught at Michigan and how it was taught, and hoped to have an opportunity to present this to the Association.

On motion Dr. Hoff's communication was made the special order of business for the evening session.

The next order of business was the election of officers for the ensuing year, which resulted as follows:

*President*—Dr. Eugene H. Smith
*Vice-president*—Dr. N. S. Hoff
*Secretary-treasurer*—Dr. Edward C. Kirk
*Executive Committee*—Dr. W. S. Hosford, for one year, Dr. N. S. Hoff, for two years, and Dr. E. H. Smith, ex officio
*Educational Committee*—Dr. J. G. Sharp, for one year, Dr. E. C. Kirk, for two years, Dr. Alfred Owre, for three years, and Dr. E. H. Smith, ex officio

The meeting adjourned.

The evening session was devoted to the reading of a paper by Dr. N. S. Hoff, entitled "The Curriculum of the College of Dental Surgery of the University of Michigan," as follows:

*To the Dental Faculties' Association of American Universities:* With your permission I desire to present in this formal way a brief statement of the curriculum that we are endeavoring to teach in Michigan University, with the hope that it may draw your criticisms and provoke a beneficial discussion of this vital subject. Our curriculum, you will observe, is to some extent dependent on our circumstances, but in the main it is the result of the gradual development of years of experience and much thoughtful consideration, and also of free interchange of views and experiences with other men and institutions. While we realize that at the present time it may not be practicable or wise to undertake to establish a universal curriculum that is identical in all our institutions in every detail, there may be advantages worth while for the six schools represented in this body in erecting a standard of education that shall have national, if not international, recognition as being typical of the best that our country maintains. We do not think this an unworthy or impracticable ambition; in fact, I doubt not that many of you have been many times reminded by members of the profession that something worthy and desirable in the establishment of higher professional training is expected from this organization, and where would the foreigner expect to find the highest standards except in university schools?

It would seem, then, highly desirable that we should begin by making a thorough investigation of our work, as to what sort of training we are individually and collectively offering. I trust, therefore, that I shall not tire you by rehearsing, as briefly as may be consistent with adequate statement, the actual work done in this school. I have prepared a statement giving in tabular form the hours scheduled in the several subjects, which you will kindly consult in connection with this reading. I will take up each subject in this chronological order, that you may follow our idea of the sequential grouping of subjects and some of the reasons therefor.

## FIRST YEAR

### General Principles of Arrangement of Curriculum

Without discussing at length all the reasons for the form as well as the substance of our curriculum, we shall present it by subjects in the order followed in the course. Because we have found it difficult for high school students who have been trained to follow closely textbook instruction to grasp the didactic or lecture form of instruction, and because a large majority of students entering our school have never had any other kind of instruction than textbook work, we have thought it wiser to lead them gradually into the more difficult scientific subjects, after they have learned university teachers' methods to some extent. We have therefore adopted the plan of occupying the major portion of the time of the first year student in the development of technical skill, and of limiting his scientific studies to not more than two general subjects. At present we teach the following subjects in our first or freshman year. [See Tables I and II.] You will observe that our students take lecture and laboratory work in inorganic chemistry during the first semester as their only class studies; the remainder of the time is devoted to technic work in the prosthetic laboratory. In the second semester, the chemistry course is continued as a lecture course in organic chemistry, and a laboratory course in qualitative chemistry. Histology is also given in the second semester, and the balance of the time is used to complete the course in prosthetic technics.

*Inorganic chemistry.*—The course in inorganic chemistry is given in four lectures or recitations of an hour each, and two afternoons of laboratory work each week. The lectures are all illustrated by demonstrations, and the textbook used is Smith's *College Chemistry*. The aim is to present as thoroughly as possible the general principles of the chemistry of the essential elements and their principal compounds, especially showing their combining and other chemical and physical properties. In the laboratory course, students make such experiments as they can to impress upon them the principles of general chemistry in the preparation and study of the peculiarities of the important elements in compounds and isolation. No attempt is made to teach technical application, but thorough grounding in general chemical principles only is taught. The course is given by Professor Lichty.

TABLE I

SHOWING ALLOTMENT OF TIME

FRESHMEN

| Subject | Lectures | Laboratory | Per Cent |
|---|---|---|---|
| Inorganic chemistry | 4×17= 68 | 132 | 13 |
| Qualitative chemistry | 2×17= 34 | 132 | 11 |
| Organic chemistry | 4×17= 68 | ... | 5 |
| Histology | 4×10= 40 | 160 | 13 |
| Prosthetic technics | 3×34=102 | 660 | 51 |
| | 312 | 1084 | 93 |

(34 weeks × 44 hours = 1496 working hours per year. 8 hours per day, 5½ days = 44 hours per week)

| | | |
|---|---|---|
| Available hours | 1496 | or 100 per cent |
| Scheduled hours | 1396 | or 93 per cent |
| Lost | 100 | or 7 per cent |

JUNIORS

| Subject | Lectures | Laboratory | Total | Per Cent |
|---|---|---|---|---|
| Prosthodontia | 4×17= 68 | ... | 68 | 4½ |
| Dental anatomy | 2×17= 34 | ... | 34 | 2¼ |
| Operative technics | 18×13= 59 | 195 | 234 | 15⅜ |
| Bacteriology | 25× 8= 40 | 160 | 200 | 13¼ |
| Orthodontia technics | 20× 4= 12 | 68 | 80 | 5¼ |
| Physiology | 5×17= 85 | ... | 85 | 5½ |
| Crown and bridge work | 3×17= 51 | ... | 51 | 3½ |
| Materia medica | 2×17= 34 | ... | 34 | 2¼ |
| Anatomy | 25×10=250 | ... | 250 | 16¾ |
| Operative clinic | 30×10=300 | ... | 300 | 20 |
| Pathology | 3×17= 51 | ... | 51 | 3½ |
| | | | 1387 | 92½ |

| | | |
|---|---|---|
| Available hours | 1496 | or 100 per cent |
| Scheduled hours | 1387 | or 92½ per cent |
| Lost | 109 | or 7½ per cent |

SENIORS

| Subject | Lectures | Laboratory | Total | Per Cent |
|---|---|---|---|---|
| Surgery and hospital | 3×34= 68 | 34 | 102 | 6¾ |
| Operative principles | 2×34= 68 | ... | 68 | 4½ |
| Therapeutics | 2×34= 68 | ... | 68 | 4½ |
| Pathology and laboratory | 3×17= 51 | 60 | 111 | 7½ |
| Orthodontia | 2×17= 34 | ... | 34 | 2¼ |
| Porcelain | 2×34= 68 | ... | 68 | 4½ |
| Crown and bridge and clinic | 1×34= 34 | 180 | 214 | 14¼ |
| Prosthodontia | ..... | 180 | 180 | 12 |
| History and ethics | 2×17= 34 | ... | 34 | 2¼ |
| Operative clinic | 18×34=612 | ... | 612 | 41 |
| | | | 1491 | 99½ |

| | | |
|---|---|---|
| Available hours | 1496 | or 100 per cent |
| Scheduled hours | 1491 | or 99½ per cent |
| Lost | 5 | or ½ per cent |

TABLE II

FIRST YEAR—FIRST SEMESTER, OCTOBER 3, 1911, TO FEBRUARY 9, 1912

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 8 | General chemistry | General chemistry | Technic demonstration | General chemistry | General chemistry | Technic demonstration |
| 9 | Prosthetic technics, each forenoon from 9 to 12 | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 1 to 5 | General chemistry | Technics | Technics | Technics | General chemistry | |

FIRST YEAR—SECOND SEMESTER, FEBRUARY 12 TO JUNE 15, 1912

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 8 | Organic chemistry | Organic chemistry | Technic demonstration | Organic chemistry | Organic chemistry | Qualitative chemistry 8-12 |
| 9 | Prosthetic technics, each day, except Saturday, from 9 to 12 | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 1 to 5 | Histology | Histology | Qualitative chemistry | Histology | Histology | |

*Qualitative chemistry.*—This is taken after the student has completed his general inorganic chemistry, the idea being, by teaching chemical analysis, to impress the principles of chemical combinations and reactions. Two lectures or quizzes of one hour each are given each week, and two half-days each week during the second semester are spent by the student in laboratory experimentation. The following outline will indicate the scope of work done:

1. Writing and naming of salts, acids, and bases.
2. A study of valences, colors, solubilities.
3. A study of characteristic reactions of common metals and acids.
4. Application of principles relating to solubilities.
5. Balancing of equations in analysis of bases and acids.
6. Study of oxidation and reduction with equations.
7. Elementary work on theory of ionization, law of mass action, and simple problems.
8. Analysis of "known" solutions.
9. Analysis of 40 "unknown" solutions.

Prescott and Johnson's textbook is used. The course is given by Instructor Cole.

*Organic chemistry.*—This is given in the second semester, immediately following the inorganic course and running concurrently with the course in qualitative chemistry. The work extends through the semester with lectures and recitations, four times a week in all. An attempt is made to cover the general principles of classification, reactions, and preparation of various organic compounds. While more or less attention is being paid to such subjects as are of importance in physiology or pharmacology, the principal stress is laid upon the scientific principles of the subject of organic chemistry as such. The work covered is equivalent to

what is presented in Remsen's well-known short *Text-book of Organic Chemistry*. The course is given by Professor Gomberg.

*Histology*.—This is a combined lecture and laboratory course in general embryology and histology, and is given every afternoon from 1 to 6 o'clock for twelve weeks in the second semester. The textbook used is Huber's *Histology*. The first hour is used as a lecture, and the last hour as a quiz. Students stain, mount, and study with the microscope sections of all the important tissues in the body, and make drawings in their notebooks, and these are carefully inspected and marked. Sections showing carefully prepared tooth tissues in development and complete calcification are projected with the micro-lantern and are demonstrated. Students make a tooth section for themselves. This course is given by Professor Huber in the histological laboratory of the medical department.

*Prosthetic technics*.—This course occupies most of the time of the first year students, as will be seen by consulting the tables. The course is given by Instructor Whitman. The usual technic work is covered by taking impressions with three materials, carving teeth in plaster, vulcanite plate work, cast metal plates, swaged plates, obturators and splints, and includes the usual forms of crown and bridge work. An exhibit of the extent and character of this work can be seen in the exhibit case in the technic exhibit room. The method of instruction consists in demonstrating each piece of work before the class and explaining its construction, and the student then executes for himself the work demonstrated. The demonstrations are materially augmented by projections of pictures, models, etc., with the epidiascope, which is a most useful teaching adjunct. This course is used by us not only to impart knowledge and cultivate skill in handicraft, but to test the capacity of students in technical dentistry, and, by concentrating the work in the first year, we are able to determine whether it is wise for all freshmen to continue the study of dentistry, and to advise them accordingly.

Are we concentrating instruction unwisely on a few science subjects and giving unnecessary time to instruction in technics in our first year?

## JUNIOR YEAR

In the junior year we introduce more science subjects, and a wider variety of technical subjects. [See Tables I and III.]

*Prosthodontia*.—This is a course of lectures continuing the instruction begun in the freshman year as a technical course. It consists of four lectures each week during the first semester. The course follows substantially the course given in technics, except that no lectures are given in crown and bridge work. The principles of constructing and adapting various kinds of prosthetic dentures are rehearsed and amplified, special attention being given to the materials involved and their adaptation from the technical, sanitary, and professional considerations. The textbook used is Wilson's *Manual*. This course is given by Dr. Hoff.

*Dental anatomy*.—The course in human dental anatomy is given twice a week, during the first semester by Dr. Howell. The work in the first half of the semester consists of quizzes, interspersed with lectures, embracing the work as found in the first eleven chapters of Broomell and Fischelis' *Dental Anatomy*.

In the second half of the semester, the students are quizzed on the anatomy of the teeth, using the above book and Black's *Dental Anatomy* as textbooks.

In addition to this, sections of all the teeth are ground for the purpose of technical study.

*Comparative odontology*.—The course of comparative odontology consists of lectures, two hours a week, in which all animals are considered from the following standpoint: (1) the animal; (2) its environment; (3) its masticatory apparatus, embracing the muscles of mastication, temporo-mandibular articulation, glands, etc.; (4) its dental formula; (5) form of teeth; (6) structure of teeth; (7) attachment of teeth; (8) functions of teeth. These facts are considered and compared with the human teeth, the evolution and adaptation of the teeth to suit the animal's environment being made clear. This work is greatly enhanced by the presence of the Ford-Mitchell Museum, which contains examples of all classes of animals. This course is given by Dr. Howell.

*Operative technics*.—This course is given as a laboratory exercise in the forenoons, three hours each day for twelve weeks. It embraces demonstration by the instructor and laboratory exercises in studying tooth forms, sectioning human teeth, cavity preparation for root canal work, and cavity preparation in bone teeth set in articulated full-dentured typodonts; study of, and the introduction of, various cavity and canal-filling materials; making of instruments from bar steel, and the use of hand instruments in cavity preparation. The cavity preparation is studied in large models for fillings and inlays. This course is given by Instructor Whitman. No textbook is used.

*Orthodontia technics*.—This is a course of model-making, soldering, and adapting the Angle regulating appliances. Impressions are taken with plaster, and orthodontists' models are made from them. The arches, band, and screws are bought from the manufacturers, and the students make bands of various kinds, and adjust the arches to the typodonts. From four to

five weeks are devoted to this work. Students are advised to read Angle's textbook, and the principles of orthodontia required in appliance construction are made known in the demonstration lectures.

*Bacteriology.*—This course is given by Professor Novy in the bacteriological laboratory. The course in bacteriology as given to the dental students covers a period of eight weeks. The entire afternoon from one to six o'clock is devoted to instruction in this subject. The first hour is usually taken up with a lecture in which the work of the day is outlined, and, in addition, special topics are discussed. The effort is made in the forty hours devoted to lecture work to present the fundamental principles of bacteriology and immunity. To some extent the recent work on pathogenic protozoa is included in the subjects discussed.

The last hour of the afternoon is devoted to recitation on the work of the laboratory and the subject of the lecture, and on special chapters which have been previously assigned for study.

TABLE III

SECOND YEAR—FIRST SEMESTER, OCTOBER 3, 1911, TO FEBRUARY 9, 1912

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 8 | Prostho-dontia | Dental anatomy | Prostho-dontia | Dental anatomy | Prostho-dontia | Prostho-dontia |
| 9 | Operative technics | | Operative technics | | | |
| 10 | Operative technic laboratory—October 3 to February 9, 1912 | | | | | |
| 11 | | | | | | |
| 1 to 5 | Orthopedic technics—daily, October 5 to November 25, 1911 | | | Bacteriology laboratory—daily, December 4 to February 9 | | |

SECOND YEAR—SECOND SEMESTER, FEBRUARY 12 TO JUNE 15, 1912

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 8 | Physiology | Physiology | Physiology | Physiology | Physiology | |
| 9 | Pathology | Crown and bridge | Pathology | Crown and bridge | Pathology | Crown and bridge |
| 10 | Materia medica | | Materia medica | | | |
| 11 | Prophylaxis and therapeutic clinic—February 14 to June 8 | | | | | |
| 1 to 5 | Dissection—daily, February 12 to April 13 | | | Operative clinic—daily, April 15 to June 8 | | |

The laboratory work proper requires three hours daily, six times a week. In this work the student is taught to prepare his own cultural media, to make cultures of bacteria, molds, and yeasts from various sources, and he is especially given a number of non-pathogenic organisms which not only serve to acquaint him with the properties of this group of organisms, the methods of staining and examination, but also fix the principles of sterilization and disinfection. This work on non-pathogenic forms is preliminary to the study of pathogenic bacteria proper. The work on the pathogenic bacteria covers the most important of the disease-

producing organisms, such as the pus-producing bacteria, the germs of anthrax, cholera, pneumonia, tuberculosis, typhoid fever, etc.

The student who has thus covered the non-pathogenic and pathogenic organisms is in a position to undertake in an intelligent way a study of the organisms which are met with in the mouth and in other conditions, and at the same time is grounded in the important principles underlying the prevention of disease.

*Physiology.*—The dental students are taught physiology by lectures, accompanied by demonstrations, and by recitations. The lectures are given five times a week for one semester.

The course includes a brief review of the chemical constituents of living matter, the general characteristics of protoplasm, the composition of blood and its physiological functions, the method of action of glandular, muscular, and nervous tissues. After this general introduction into physiology, a more detailed study of the great systems of the body is taken up in the following order:

1. The movements of the alimentary canal, digestion, absorption, assimilation, diet, and nutrition.

2. The glands of internal secretion, the method of action of the excretory organs—the liver, kidney, and skin.

3. The mechanics of respiration and of gaseous exchange between the lungs and the tissues.

4. A study of the circulation, including the action of the heart and its valves, the normal heart sounds, the blood pressure and the pulse, and the nervous regulation of the heart and blood vessels.

5. Finally, the character and physiological activities of the central nervous system, embracing the method of transmission of impulses, reflex processes, and the functions of the cerebrum, cerebellum, and spinal cord.

The student is expected not only to see the experiments which are given in the course, but to take notes, and from time to time to hand in written reports of the results of the experiments.

About one hundred tests and experiments are performed during the lectures; these are made before the class in an amphitheater so constructed that all can readily see the work, or in case of certain experiments, of a type not to be seen from a distance, the preparations are demonstrated to the individual members of the class. These tests and experiments illustrate the following:

The reactions of carbohydrates, fats, and proteins; the structure and chemical reactions of the blood; muscular contractions, reflexes; movements of the alimentary canal; the action of saliva, gastric, and pancreatic juice; the chemistry of the urine; the physical processes of respiration, of heart action, the pulse, and the conditions governing blood pressure.

Frequent reviews of the ground covered are secured by oral and written quizzes, and the students are encouraged to read textbooks more advanced than Wiggers' *Brief Text-book of Physiology*, which is the textbook employed in connection with the daily work of the course. This course is given by Instructor Cole of the physiological laboratory.

*Dental pathology.*—The course in pathology is taught by means of two lecture and one laboratory course. One lecture course is given to the juniors in the second semester of the junior year, and another course to the seniors during the first semester of the senior year. The time occupied is three hours per week in each course for a semester.

The ground covered in these courses is the consideration of the various pathological processes in the mouth, and their connection with the general bodily processes. A short résumé of the general pathology is made, a review of the development and structure of the tissues of the mouth, and then the various dental diseases are considered in detail from a pathological standpoint. The lectures in the junior year are given for the purpose of presenting a general view of these subjects to the student before he enters upon active practice in the clinic, he being required to prepare an accurate notebook from these lectures, covering the subjects treated. In the senior year the same ground is covered more carefully in the form of a quiz, using Burchard and Inglis' *Pathology* as a textbook.

The laboratory course consists of from eight to ten demonstrations before small sections of students, using the stereopticon and requiring that the student make forty ink-drawings of various pathological sections. This course is given in the first semester of the senior year by Professor Bunting.

*Crown and bridge work.*—Two lecture courses are given, one being a course of three lectures a week for one semester to the junior students, embracing the principles involved in the construction and adaptation of various forms of crowns and bridges. Goslee's textbook is used. The other comprises one lecture a week of a clinical character throughout the senior year. Demonstrations or clinical illustrations are utilized in the discussion of peculiar or variant methods in special cases which appear in the clinic. The clinic is held four days each week from ten to twelve o'clock, when practical cases are treated by the student.

*Materia medica.*—This is a course of two lectures each week during the second semester of the junior year. All drugs which are used in dental practice are exhibited, and described with particular reference to their pharmacology and dental applications. Instructor Harper, a dentist, gives this course.

*General anatomy.*—This course is given as a combined lecture and laboratory course in the junior year. The time devoted to it is twelve weeks each afternoon from one to six o'clock. Students make dissections of the head and thoracic and abdominal viscera. As each region is dissected, the osteology is studied from the bones involved, which are loaned to students for use in their rooms. Daily conferences and quizzes explain and enforce the technical work. A brief guide to the parts involved is furnished the student, and he is required to do reading in anatomical textbooks. The lectures are given at the beginning of each day's work. Professor Streetor and his demonstrators give this course in the anatomical laboratory.

*Junior clinical work.*—During two hours of the forenoon in the second semester, and the afternoons from April 15 to the close of the session, the junior students begin operative work in the clinic. They serve as assistants to the seniors, and begin clinical work with oral prophylaxis of the simpler cases. They also make fillings in easy cavities. Enough work is done to insure that at the beginning of their senior year the students shall already have become familiar with operative procedures and the handling of patients.

## SENIOR YEAR

The senior year is devoted almost entirely to instruction in clinical work, and consists of lectures on clinical subjects and clinical practice in all subjects. [See Table I and IV.]

*Oral surgery.*—This subject is taught by lectures, quizzes, clinical lectures, and clinics. The lecture course comprises two lectures and one clinic a week throughout the year, and embraces the following subjects:

1. The action and use of general anesthetics.
2. Inflammation and general infectious diseases.
3. Tumors in the oral region.
4. Syphilis in its relation to dentistry.
5. Special diseases of the mouth and throat.

Arrangements have been made at the University General Hospital whereby all cases of interest to the dental students can be presented in the clinic, and dental students have free admission to all clinics. A state law provides for the treatment of congenital deformities at the university hospital, and a large number of cases of cleft palate and harelip are sent here for operations. These, together with many cases of tumors and dentigerous cysts and operations upon the teeth, make this clinic one of exceptional value to dental students. All patients of the hospital are accessible for examination and study in research problems concerning the mouth and teeth, and many cases of great interest to dentists present every year. Professor Darling and Dr. Lyons have charge of this course.

*Operative principles.*—This is a course of two lectures each week given by Professor Ward. It consists of a discussion of the nomenclature, the operative field, forces and forms of energy, stress, strain, and resistance with reference to forces applied to teeth in varying conditions; structure and composition of teeth with respect to forces applied, etc.; nature of filling materials, and the establishment of a standard for judging materials. A discussion of the several individual filling materials is then given. A full study is made of the value of gold as a filling material, and as a standard of judging other materials. The other filling materials, such as tin, porcelain, amalgam, cements, gutta-percha, etc., are fully considered as to their physical properties and adaptability as practical filling materials.

*Porcelain course.*—The course in porcelain consists of one lecture each week, and one demonstration in technical work each week, during the first semester. In the lecture course, the history of porcelain in general, and the history of dental porcelain is taken up, followed by a study of the composition, characteristics, etc., of the different porcelain bodies. The different furnaces are studied, and methods of ascertaining the fusing point of porcelain are discussed. The color problems are studied by showing the relation of light to color, and, in this connection, the properties of light that affect the color of porcelain are illustrated. Practical lectures in porcelain crown and bridge work are given, and two or three lectures are offered on cavity preparation, showing how cavities prepared for porcelain differ from those prepared for other filling materials. The technical course follows along with the lecture course. The students have an opportunity in this course to learn the manipulation and practical application of porcelain in the construction of crowns and inlays on models. Two hours a week throughout the second semester are devoted to practical work upon patients, each student being required to make at least one satisfactory inlay before passing the course.

TABLE IV

THIRD YEAR—First Semester, October 3, 1911 to February 9, 1912

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 8 | Surgery | Surgery | Operative principles | Therapeutics | Operative principles | Therapeutics |
| 9 | Pathology | Orthodontia | Porcelain | Crown and bridge | Pathology | Pathology |
| 10 | | | | | | |
| 11 | Plate, crown and bridge, and orthodontic clinic daily | | Hospital clinic | | | |
| 1 to 5 | Operative clinic—daily except Saturday | | | | | |

THIRD YEAR—Second Semester, February 12 to June 15, 1912

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 8 | Surgery | Surgery | Operative principles | Therapeutics | Operative principles | Therapeutics |
| 9 | | History and ethics | Porcelain | Crown and bridge | | History and ethics |
| 10 | | | | | | |
| 11 | Plate, crown and bridge, and orthodontic clinic daily | | Hospital clinic | | | |
| 1 to 5 | Operative clinic—daily except Saturday | | | | | |

*Dental therapeutics.*—The lecture part of the course is given as a two-hour lecture and quiz course during the entire senior year. Special attention is given to the classification, the action, and the uses of drugs and agents that are important. The action and practical application of agents in classes is emphasized rather than the agent itself.

At regular intervals demonstrations are given illustrating the practical application or administration of agents by different methods and for specific purposes. Special attention is also given to prescription-writing and the practical application of the metric and English systems of weights and measures with laboratory demonstrations. A few demonstrations are given in urinary analysis and the detection of unknown drugs; fifty of the most common drugs, unlabeled, are at all times on exhibition in the therapeutic laboratory.

Clinical demonstrations at the chair are held from 1:30 to 5 o'clock, five times a week during the entire year. Quizzes on the practical application of drugs or agents or methods are given each student as occasion arises. Aseptic and antiseptic methods of treatment are rigidly enforced, and credits given for same. Quality rather than quantity as to the character of work is thoroughly impressed upon the student.

From October until the Christmas vacation practical demonstrations on patients are executed before the entire class. These are given in the lecture room, twice a week, before beginning the afternoon's work and are as follows:

A practical demonstration in the technique of oral prophylaxis; pulp removal by different methods: root-canal-filling; treating putrescent pulps, pulpitis, etc.; treating abscesses of various kinds; treating pyorrhea alveolaris; the extracting of teeth; bleaching of teeth by different methods; treating hypersensitive dentin; the administration of anesthetics.

Daily demonstrations are held in the use of the X-ray apparatus for diagnosing obscure pathological conditions, root-canal fillings, etc., also several demonstrations with X-ray apparatus before the entire class, illustrating both the theoretical and the practical features involved, Long's and Buckley's textbooks being used. This course is given by Professor Loeffler.

*Prosthodontia clinic.*—In this course the students do plate work and treat orthodontia clinical cases. The plate cases are assigned to a section of twelve seniors for periods varying according to the number of students in the senior class, and also as the plate work comes in. We plan to have each senior make a full upper and lower plate with vulcanite or metal bases, and such partial dentures and repair cases as may develop in the clinic during each period. The orthodontia cases are assigned to such students as express a preference for them, but an effort is made to have a case in each section of the clinic room, so that each student may have a chance to observe and follow the treatment of the case if he desires. We have found that it is impracticable to undertake the treatment of more than thirty cases, as almost every treatment requires the advice of the instructor. An effort is made to take as far as is practicable such cases as may be carried through the treatment during one year, or as can be retained through the summer vacation. This clinic is under the supervision of Dr. Hoff.

*Orthodontia lectures.*—The lecture course in orthodontia is given by Dr. M. T. Watson, of Detroit, and consists of one lecture hour and one hour for inspection of patients and directions for treatment each week. The directions for treatment are recorded by a stenographer, and three copies of the dictation are transcribed, one for the students, one for the clinical instructor, and one for record.

An endeavor is made in this lecture course to convey to the students a clear conception of normal occlusion and of the normal development of all the adjacent structures both of the internal and external face; at the same time to outline briefly the possibilities and value of normal function for all these parts, and the importance and far-reaching effect of normal breathing, which is only possible when these structures are at least moderately well developed.

We then show by pictures and descriptions the evil influences of malocclusion, which is not a separate and distinct condition in itself but is merely an evidence or symptom of a deeper and a more far-reaching evil influence—namely, a developmental disturbance of the structures of the internal face. In this connection the baneful influences of a restricted breathing capacity and also the associated nervous influences are dwelt upon to some extent.

We also dwell at considerable length upon and show by a large number of pictures the dire consequences of the premature loss of deciduous teeth. The loss of permanent teeth may be considered premature up to seventy-five years of age, though of course the evil influences are much more pronounced during childhood. In addition we are studying the classification of malocclusion and the general principles involved in the correction of the various classes, all these lectures being illustrated with the stereopticon lantern.

Owing to the exceedingly exacting nature of this work, the writer believes that out of consideration for the patient, it is highly important that a trained man, with ample time at his command, should be put in constant charge of a clinic of this sort, and that even the simplest adjustments should not be made except under his personal supervision and direction. If it is not possible to do the work this way, then I believe it should be conducted as a surgical clinic is—viz., the operator in charge of the work making absolutely all the adjustments—for in no other way does it seem possible to accomplish ideal results, and at the same time save the patient from a vast amount of needless discomfort.

By this course as outlined it is intended that students shall be taught only the more important and conspicuous features of the pathology involved, no attempt being made to go into the details of the work to the degree which is necessary in order to develop trained specialists. The subject is taught rather with the idea of impressing in the most forceful manner possible the value and importance of a normally developed internal face, involving, of course, normally developed jaws and teeth, and of emphasizing the profound effects of early attention in the way of the correction of these conditions, incidentally showing the students in the clearest possible way the evils following extraction and lack of proper contour in fillings, crowns, etc.

*Clinical operative dentistry.*—Clinical operative dentistry is taught in the operating room at the chair, and by a course of lectures on clinical procedures covering about twenty hours, all of which are given at the beginning of the session. In these lectures the instruments used are described; the methods of handling patients discussed; examinations for caries, placing of rubber dams, and the various methods of isolating the teeth and reasons for so doing; the opening of cavities and their formation for filling materials; the introduction of various filling materials, and the finishing of fillings; the technique of root-canal work; the treatment

of the teeth and peridental structures; extracting; the X-ray in diagnosis; prophylaxis; gold and porcelain inlay filling—these and other similar and customary procedures are discussed. About six hundred hours are devoted to this work in the senior year. Professors Hall, Loeffler and Ward, and four demonstrators, are in charge of the clinic every afternoon except Saturday from 1:30 to 5 o'clock. Each student is assigned a chair at the beginning of the year, and he is taught to handle his patients in such a way as to give him experience and training for private practice. Complete records are kept of each student's work, and these enter largely into the required attainments he must make for graduation. After the Christmas holidays every filling made by the student is graded and marked. The roll is taken every day, and any student who is absent more than three days must make satisfactory excuse to the attendance committee; this also applies to all the lecture courses.

*History and ethics.*—A course of lectures is given in the senior year by Dr. Hoff on general subjects which cannot well be incorporated in any course of the curriculum; also a course on dental history, taken largely from Professor Guerini's *History,* and Koch's and Thorpe's histories supplemented by the instructor's personal acquaintance with dental practitioners whom he has known, and who have stood for substantial principles in the upbuilding of the profession. This gives opportunity to introduce instruction on professional conduct and to give concrete illustrations, as it were. This is followed by several lectures on the literature of the profession, giving here also opportunities for calling attention to the value of participation in literary work, and how to cultivate a taste and capacity for such work. Here is also discussed the dental society, its work and value to the profession and the individual. Two or three lectures on professional ethics and jurisprudence are also given. Four or five lectures on practice building and business details and methods of conducting a practice complete the course. This course takes up from twenty-five to thirty hours. It has proved a very interesting study for the instructor, and has been received by the students with keen interest and, we hope, to their advantage.

This constitutes our course of instruction, and we trust the detail has not been so tiresome that you may not feel disposed to discuss and criticize any feature of it that does not meet your approval, as we are aware that it is not perfect. As you will observe, we are occupying all our available time, and feel that any further additions to the curriculum cannot be made except additional time be provided in some way. Shall we increase our entrance requirements, and so get better prepared students who will have had some of the fundamental sciences in their academic courses and be prepared to do the work in a shorter time, or shall we add another year to our course and more studies to the curriculum? You will note that we repeat none of our courses, and we have concentrated our efforts wherever it seems practicable. With the science subjects broadening every year and with the tremendous advancement of the last fifteen or twenty years in technical knowledge, it does seem that the time is not far distant when we shall be compelled to condense or crystallize our work into the "active principle" form, or extend materially the time for its presentation.

After the reading of Dr. Hoff's paper the methods of teaching the different branches were discussed by the members present.

It was voted that the next meeting of the Association be held in Boston, the time to be agreed upon later by the executive committee.

There being no further business before the Association, the Association adjourned until the next annual meeting.

## FIFTH ANNUAL MEETING

The fifth annual meeting of the Dental Faculties' Association of American Universities was called to order April 22, 1913, at 10:30 a.m., by the president, Dr. Eugene H. Smith, in the faculty room of the Harvard Dental School, Boston, Massachusetts.

Membership universities were represented as follows: California, Dean W. E. Sharp; Harvard, Dean Eugene H. Smith; Iowa, Dean W. T. Hosford; Michigan, Dean N. S. Hoff; Minnesota, Dean Alfred Owre; Pennsylvania, Dean E. C. Kirk.

Visitors: Drs. W. E. Boardman, L. P. Hall.

Minutes of the previous meeting were read and accepted.

The next order of business was the address of the president, Dr. Eugene H. Smith.

*Gentlemen, Honored Members of the Dental Faculties' Association of American Universities:* It is a great privilege, permeated with much pleasure, to welcome you in the name of Harvard to our university.

The dental department has courageously striven to keep abreast of the time, to increase dental education, and to advance the standard of the profession.

Since the memorable meeting of the National Association of Dental Faculties at Asheville, when Harvard felt it necessary to withdraw its membership, followed shortly after by the several dental departments of universities here represented, our united efforts have made this advance steady and safe. This step, however, indicates only a beginning—a good beginning, to be sure—and also a danger of contentedly hovering around our beginnings rather than the investigating of the newer problems in education, with a determination to adopt whatever may seem to be in the line of progress.

Let us, then, consider in the first place what we have accomplished, and in the second place, what our progressive problems are and how we are to solve them.

We have accomplished a sodality of six university departments whose aims are identical, and whose purpose is to bring about a higher standard in the profession.

To that end we are united in a predental requirement of four years' training in an accredited high school.

This uniformity of requirements means, I hope, that for the moment only we may rest while considering further advancement in predental training. I find, however, that while in the main our entrance requirements are the same, we differ somewhat in details. For instance, the Harvard Dental School definitely states the courses that a student must take during his four years in high school.

Those courses must include English, algebra, physics, chemistry, the study of a foreign language for at least two years, and history, if the student has not taken Latin. He may elect geometry, botany, zoology, anatomy, wood-working, blacksmithing, chipping. filing, fitting, or machine tool work. If one or two of the required subjects have not been taken by the applicant during his high school course, he may be admitted with a condition in these two subjects, but must remove the conditions previous to being admitted to the senior class.

Other schools, however, in our Association make a different statement in the interpretation of a four-year high school course, namely—

The University of Minnesota makes obligatory English, algebra, geometry, chemistry, and manual training; the University of Iowa does not seem to make it clear what obligatory subjects are required; the University of California, after August 1913, requires four years of high school plus two years of college work; the University of Michigan makes obligatory English, algebra, geometry, physics, Latin, and chemistry; in the University of Pennsylvania, chemistry seems to be the only obligatory subject, coupled with a large field of electives.

Such a wide latitude of obligatory subjects among us is not, I think, desirable.

As above stated, the College of Dentistry of the University of California has already committed itself to a requirement of two years of college training and the College of Dentistry of the University of Iowa is contemplating a similar change. It therefore seems to me to be expedient and wise to have more uniformity in this matter, especially in regard to the obligatory subjects.

Further steps along these lines must, I think, be taken with great care, not so much owing to the fear of lessening the number of our students, as to the fear that men may be unwisely trained for the duties required of the dentist.

It therefore becomes one of our most important problems to decide how much of college or academic training shall be required of men entering upon the study of our profession. Shall it be one, two, three, or four years of academic work, and what subjects shall be required from the elective field now offered in academic work?

While the predental training required by our several schools, as I have pointed out, is not quite the same we are much more at variance in the sequence of our curriculum. It would help to standardize the professional training which we give to our students, and make easier the transfer of students from school to school if we could bring about a uniformity in the sequence of subjects taught, and I recommend that we take this matter into consideration.

I think we all realize that the professional education necessary for a dentist today cannot well be met in a three years' course, and that a fourth year is most desirable.

I do not feel that the time is ripe for an obligatory fourth year, but I do think and recommend that we offer at once a fourth year elective course. Such a course, if well planned, would prove attractive not only to our students, but to practitioners, who would be glad to avail themselves of the opportunity such a course would offer.

Certificates of various grades might be granted for attendance upon such a course, depending upon the courses taken, the time spent in such courses, etc.

Our profession has not done, nor is it now doing what it should in the way of scientific research and preventive dentistry, and steps should at once be taken to bring about interschool action to foster a spirit of research among our student body.

Such steps have already been taken in the Harvard School, where some two years ago a students' society for dental research was formed, and named after Mrs. Harriet N. Lowell, whose generous gift to the school made the formation of the society possible. This society is under the management of a research committee appointed by the administrative board, and is made up of men who are giving a portion of their time to research work, and who are also interesting young students in scientific work.

It would be highly advantageous if similar societies could be formed in our several schools, thus bringing about an interschool society of dental research, and, through such co-operation, an exchange of scientific endeavor.

We are still lacking the knowledge necessary properly to rate students coming from foreign schools, and in order that there be a clear understanding in regard to these schools, I recommend that a special committee be appointed to investigate the matter thoroughly and report at our next meeting.

There has always been, and there appears still to be, somewhat of a reciprocal alliance between the National Board of Examiners and the National Association of Dental Faculties, and, if in the judgment of the society such co-operation is to the benefit of higher dental education, steps should be taken to bring about a similar arrangement between our Association and the National Board of Dental Examiners.

In the last report of the president of the Carnegie Foundation mention is made of the intention of the Foundation to investigate the standards of the dental schools.

This is a hopeful sign and if carried out will prove, I believe, to be as great a service to dental education as the Foundation's investigation of the medical schools has been to medical education.

In this connection I would recommend that we send to the Carnegie Foundation our appreciation of its intention to investigate dental education in America, and to express our hope that the investigation will be made at an early date.

The next order of business was the report of the secretary.

The secretary reported the receipt of a letter from the dean of the Tokyo Dental College with regard to admission of students from that college to advanced standing in membership schools of the Association; and of similar inquiries from Nippon Dental College, the dental school in Odessa, Russia, and from Dr. Owre on relation to graduates of American schools settling in the British colonies.

The secretary reported the application of Washington University for membership; and he submitted a letter from Dean Hosford, of Iowa, reporting the condition of the dental departments of Drake University and the University of Iowa.

He further submitted a letter from Dr. Newell Gill Jenkins, of Dresden, Germany, suggesting an interchange of professors between German university dental schools and the schools of the Association.

The secretary further reported that, following his instructions, he had transmitted to the Carnegie Foundation for the Advancement of Teaching the text of the resolution of the Association suggesting that the Foundation investigate and report upon educational conditions in dental schools holding membership in the Association. He submitted the text of his letter and the reply from the Foundation. He also submitted an invitation to the Association from the Panama-Pacific Exposition Company to hold its annual meeting for 1913 in San Francisco; and he suggested the possible desirability of informally participating in the Sixth International Dental Congress to be held in London, August, 1914.

A financial report was submitted.

The next order of business was the report of the executive committee. Dr. Hoff, chairman, reported that nothing had been referred to the executive committee during the year to be acted upon, and therefore there was no report to make.

Dr. Kirk suggested that the application of the Washington University Dental School be referred to the executive committee.

Dr. Smith suggested that it would probably be best to refer this application to the educational committee.

After discussion it was voted to refer the application of Washington University Dental School to the executive committee.

With regard to applications from Japanese colleges for admission to advanced standing, it was voted that the standing resolution governing the admission of students of schools not members of this Association to advanced standing in schools of this Association be applied to the case of the students from Japanese schools as it applies to students from other schools.

Dr. Kirk then presented the following resolution relating to the proposal from Dr. Jenkins regarding exchange of professors:

*Resolved,* That it is the sense of this meeting that the faculties represented in the Dental Faculties' Association of American Universities view with sympathetic favor the suggestion for an interchange of teachers with the German university dental schools.

The resolution carried.

The meeting adjourned until the afternoon session.

At the afternoon session the consideration of the dental schools of Drake University and the University of Iowa were, at Dean Hosford's request, ratified by the Association.

An application from a student from the dental school of Odessa, Russia, for advanced standing was submitted for consideration. It was voted that the Association accept credentials from dental schools in Russia, granting advanced standing, in time only, of not to exceed one year, and this only when the applicant has shown by such credentials or examination that he is entitled to this amount of credit.

The motion carried.

On motion the invitation of the University of California and of the Panama-Pacific Exposition Company to meet in San Francisco in 1915 was accepted.

Dr. Kirk's invitation to meet in Philadelphia in 1914, at a time convenient to the Association, was accepted.

The report of the treasurer was accepted.

Dr. Sharp moved that one member of the executive committee be delegated as a committee of one to inspect the Washington University Dental School, in order that the executive committee could more intelligently pass upon the application for membership in the Association.

The motion was passed.

It was voted that the executive committee select one member of the committee to do this at the expense of the Association.

The executive committee announced Dr. Hosford as its selection for this work, and Dr. Smith suggested that Dr. Hosford be equipped with proper credentials by the secretary.

Dr. Sharp spoke of an effort being made to establish a dental department in connection with the University of Illinois, and after some discussion of the question, offered the following resolution:

WHEREAS, The members of this Association have learned that it is the intention to establish a dental school in connection with the University of Illinois; therefore be it

*Resolved,* That this body views with great satisfaction this movement toward the placing of dental education in the state of Illinois upon a university basis, it being the belief of the Association that the interests of dental education will be best conserved by such a relationship, and that the final outcome of dental educational progress must be determined through the fostering care of the universities constituting the higher institutions of learning of this country; and be it further

*Resolved,* That a copy of this resolution be forwarded to the president of the University of Illinois as an official expression of the interest of this Association in the proposed plan of creating a dental school as an integral part of the educational system of the University of Illinois.

The resolution was adopted.

Dr. Sharp asked advice with regard to what to do with an application from a student from the University of Texas, stating that he had the B.S. degree and had taken two years in dentistry, and asked if he could be allowed credit for two years.

It was the sense of the meeting that this applicant could be allowed one year time credit, but should be required to take two years in dentistry.

Dr. Kirk raised the question as to giving undergraduates in medicine any allowance for time in the dental course.

Dr. Hoff suggested that it would be fair to give such men credit for one year in dentistry when they have taken two years in medicine. After further discussion of the subject, it was voted that Dr. Hoff be appointed a special committee to bring in a report at the next meeting of the Association on the question of granting advanced standing to undergraduate medical students in the dental course—that is, undergraduates from medical departments of universities.

It was suggested that consideration of the president's address be made the first order of business for the morning session.

The meeting then adjourned until Wednesday morning.

At the Wednesday morning meeting Dr. Sharp brought up the question of a course in oral hygiene and dental economics; he asked the consensus of opinion as to the advisability of giving this as a regular course, and giving specified time to the subject.

The question was discussed by Drs. Smith, Kirk, Owre, and Sharp, but no action was taken on the matter.

Dr. Smith submitted the application for advanced standing of a student from the North Pacific Dental College who had matriculated at the Harvard School, but whose credentials were not up to the standard. Dr. Smith said this student had not been allowed to continue his second year because of his not satisfying the educational requirements, which were difficult to establish.

The sense of the meeting was that this man be not allowed to continue his course until he meets the preliminary educational requirements.

The next order of business was the consideration of the recommendations in the president's address.

The first question to be considered was that of differences among schools of the Association with regard to obligatory subjects in the curriculum. Considerable discussion of the subject was entered into by Drs. Smith, Owre, Kirk, and Hoff, after which Dr. Kirk moved that each member of the society be requested to express his views on the subject and forward them to the chairman of the educational committee, and let him, from that, systematize a report that will give a definite record as to how near the different college curricula are together, and formulate from that a plan that would tend to unification; this to be discussed at the next meeting of the Association.

The motion was carried.

The next recommendation in the president's address was that in regard to the standardizing of the curriculum.

Dr. Hosford suggested that a minimum requirement of hours for each subject be made standard in the schools.

Dr. Owre suggested that each member of the Association send each year a member of the clinical staff of the institution, that they might become conversant with the views of the Association in regard to educational matters, clinical work, etc.

It was voted that this question be referred to the educational committee, to make a report and recommendation.

The next question considered was that of a fourth year elective dental course.

Dr. Owre moved that, that question be referred to the educational committee.

Motion carried.

Dr. Owre moved that the recommendation in the president's address, to the effect that the secretary be instructed to write to the Carnegie Foundation and express the appreciation of this Association of their intention to investigate dental education in America, and to voice the hope that the investigation be made at an early date, be adopted.

Motion carried.

The next order of business was the election of officers for the ensuing year.

Dr. Sharp moved that the present officers be re-elected to their present positions.

Motion carried.

Dr. Hoff moved that Dr. Hosford be re-elected to the executive committee for two years.

Motion carried.

Dr. Hoff moved that Dr. J. G. Sharp be re-elected to the educational committee for three years.

Motion carried.

The meeting adjourned subject to the call of the president.

## SIXTH ANNUAL MEETING

The sixth annual meeting of the Dental Faculties' Association of American Universities was called to order March 20, 1914, by Dr. Alfred Owre, in the Hotel Radisson, Minneapolis, Minnesota.

Dr. Owre moved that Dr. Kirk act as temporary chairman in the absence of the president and vice-president.

The motion was carried, and Dr. Kirk took the chair.

It was voted that Dr. Breene act as secretary pro tem.

Membership universities were represented as follows: California, Dean J. G. Sharp; Iowa, Dean F. T. Breene; Minnesota, Dean Alfred Owre; Pennsylvania, Dean E. C. Kirk.

Visitors: Drs. E. T. Darby, O. A. Weiss.

The minutes of the previous meeting were read and accepted.

The next order of business was the reading of the president's address, by Dr. Eugene H. Smith, in whose absence it was read by Dr. Alfred Owre.

*Members of the Dental Faculties' Association of American Universities:* My message to you at this meeting will necessarily be brief, since the more important matters governing our organization were considered and recommended to you in my message of last year.

These several recommendations have been under consideration by the various committees during the past year, and will, I presume, be reported upon in full during our present session.

I would again call your attention to the need of a reciprocal system of research in our schools. I touched upon this matter in my last message, but made no special recommendations.

I feel that organized research work should be done within the schools themselves, acting in a reciprocal way, rather than through the medium of our dental societies. I therefore recommend that this matter in its various phases be considered at this meeting.

The action taken by the National Dental Association in investigating and rating the dental schools of the United States is, I think, to be commended, and while it is to be

regretted that in the appointment of the committee to do this important work the university dental departments are not represented, I feel that we should be as helpful as possible, and at the same time still urge upon the Carnegie Foundation an investigation and rating of its own.

I beg to call attention to the following standing resolution in regard to admittance of students from other schools not holding membership in our Association. It reads as follows:

*"Resolved,* That students from American schools not holding membership in this Association may be admitted to schools holding membership in this Association, provided their preliminary training is equal to the training required of students seeking admission to our university schools, and that they be given credit for the time spent in dental study, but that no credit be given for any professional subject, and therefore that they must pass examinations in all subjects of the required course."

You will, I think, agree with me that undergraduates from the majority of these schools have not had the kind or extent of training that students in our schools receive, and therefore are unable, without further training, to pass the required examinations of the years that they omit.

I would therefore recommend that the resolution be so changed that undergraduates may be permitted only to enter our second year, to take all of the courses of our first year during the first year of their attendance, and the courses of our second and third years during the second year of their attendance.

I would also call your attention to the lack of provision made for graduates of the schools outside of our Association who may wish to enter one of our schools and become a candidate for our degree. I would therefore recommend that a resolution be passed at this meeting embracing the clause that refers to preliminary requirements that is contained in the resolution referring to undergraduates of other schools, and to which I have before called your attention; and further to provide that graduates from these schools be allowed to enter our senior year and become candidates for our degree by spending one year in our schools, and passing the examinations of our three years.

Meeting as we do each year at the home of one of our schools, it is most desirable that we spend as much of our time as may be consistent in the study and comparison of our methods of teaching. Such study cannot be otherwise than mutually beneficial.

Consideration of the president's address was set for the next morning.

The next order of business was the report of the secretary-treasurer.

The secretary reported inquiries from three university dental schools with regard to conditions of membership in the Association. He further reported the fulfillment of all instructions given him at the previous meeting, and submitted a financial report.

The report was received and consideration deferred to a later session.

Dr. Owre read a letter from Dr. Grant, of the Dental Educational Council of America, advocating an increase of fees in dental schools. No action was taken.

The meeting adjourned till the evening session.

The evening meeting was called to order by Dr. Hoff, vice-president, at 8 o'clock, in the University Club of St. Paul.

Those present at the meeting were Drs. Hoff, Breene, Owre, Sharp, the entire faculty of the University of Minnesota, presidents of the two local societies, Dr. Eck, vice-president of the Norwegian Society, and two members of the State Board of Minnesota.

Dr. Hoff then introduced Dr. Alfred Owre, who read the paper of the evening, the "Report of the Committee on Education," as follows:

The chairman of this committee begs to submit the following report:

This Association has already acknowledged the necessity for a better product in dental education, recognizing that if there is to be any advance educationally, the universities must take the lead. The virulent criticisms of American dentistry recently aired in European journals are but one symptom of our status. Another of equal significance is legislation against American dental graduates. We are forced to look the situation in the face. Is the quality of American dental education such as to be really worthy of the high sounding appellation? Impartial observation and analysis of the situation reveal much rottenness steadily increasing. Though the new plant is slow in sprouting, and the powerful commercial ideals which are responsible for the present status of dentistry are well entrenched, a new order of things can be inaugurated if the psychological moment is grasped. To state that improvement

is necessary is not sufficient. Whatever is done must be through strong and sincere effort. Advancement in dentistry will require the strongest co-operation; it will require all the support the university schools and other forward-looking institutions can give. A half-hearted attitude will be ruinous.

In relation to our program for the enlargement of the curriculum[3] I wish to emphasize that it is not so much the content of a given year which concerns us as it is a genuine belief that we need more time for better work in much that is now being taught. Neither can we ignore the fact that it is pedagogical economy to bring to this work students who have had better preparation. It seems desirable to have a curriculum with a certain amount of elasticity in it so as to meet individual idiosyncrasies and also to allow for certain inherent local differences in educational systems. When a large and varied clinic is not available, the number of electives can be increased. The faculties may also recommend certain electives suited to the needs of their respective localities or make certain substitutes. For instance: it may be necessary to substitute botany for animal biology if the latter cannot be obtained in the preparatory course. A further illustration would be to recommend elementary political economy in the second semester of the freshman year, elementary psychology in the sophomore or junior years, and ethics in the senior year. The value of the electives cannot be overestimated, viewing the product of colleges where it has been practiced. A generous use of the elective usually produces men of greater power than a rigidly prescribed curriculum produces.

If we made better dentists twenty-five or thirty years ago it was not only due to the fact that there was less to learn and a lesser degree of commercialization, but also due to the fact that we had more time in which to do it. In our readjustment to the ever increasing demands we have increased the number of hours of work until the whole curriculum is pedagogically unsound. The academic student has a maximum of about 600 hours of assigned work per year; engineers not over 700 hours; medical students about 1100 hours. There are about 1400 hours available if we assign eight hours every day, excepting Saturday afternoon. Many dental schools assign 1200 hours of this amount. Pedagogically this is more than the student can carry profitably and the quality of his work suffers. Slipshod methods are resorted to; and our average dental graduate is not the carefully trained man he should be.

It has been the aim of the committee to keep down the number of assigned hours, especially in the first two years where theory predominates. This is not quite so important in the third year and less so in the senior year where practice fills up nearly all the hours.

In the present course we average about 1200 hours per year, the first year being the lowest, about 1100 hours. In the proposed four-year course, the average is about 1000 hours, with fewer assigned hours in the first two years; 832 and 960 hours, in the freshman and sophomore years respectively, as against 1184 and 1232 in the junior and senior years. In the course having one year of academic work as a prerequisite, there are about 100 hours fewer of assigned work in this year. This is largely due to the fact that the academic year must conform to academic usages. The assigned hours for the freshman year of dentistry are 944 as against 832 of the four-year course; otherwise the hours are about the same.

Further advantages and disadvantages of the two schemes are as follows:

The four-year course is definite and is also more directly under the control of the dental faculty. By emphasizing prosthetic technique in the first semester of the freshman year we can discover the many students who are not adapted for dentistry. They can then make a change without very much loss of time. The course has also a better sequential arrangement of subjects. It may be criticized because it requires attendance in the dental school for a total period of four years.

In regard to the course where one year of academic work is a prerequisite, a special advantage is that this is specifically an academic year and can be taken in any accredited college. It allows students a longer period for consideration of life work. It has a wider range in electives. Otherwise there is not so much difference. It cannot be claimed altogether as a preparatory year for dentistry and is not under the direct control of the dental faculty.

From the foregoing it seems possible to adopt the four-year course practically as outlined, or with some readjustment in individual cases to make use of the other. For instance: students who have had one year of academic work would be able by summer school work and perhaps some special work here and there to go on with the sophomore class. The details of this must be worked out by each institution.

The question of fees can be adjusted at a future conference, but uniformity is recommended as far as possible.

Respectfully submitted

J. G. Sharp
E. C. Kirk
E. H. Smith, ex officio
Alfred Owre, *Chairman*

[3] See detailed report of hours, pages 39-41.

## FOUR-YEAR COURSE

| | First Semester | Second Semester | |
|---|---|---|---|
| **Freshman Year** | Hours | Hours | |
| Anatomy, General Descriptive | | 96 | |
| Anatomy, Dental, Lectures | | 16 | |
| Anatomy, Dental, Laboratory | | 96 | |
| Animal Biology No. 1 General Zoology | 96 | 96 | |
| Chemistry, Advanced General and Qualitative | 64 | 80 | |
| Prosthetic Technique | 144 | 48 | |
| Rhetoric | 48 | 48 | |
| | 352 | 480 | 832 |
| **Sophomore Year** | | | |
| Anatomy, Dissection | 144 | | |
| Anatomy, Histology and Embryology | 96 | | |
| Anatomy, Dental, Lectures | 16 | | |
| Anatomy, Dental, Laboratory | 48 | | |
| Bacteriology | | 80 | |
| Chemistry, Organic | 96 | | |
| Crown and Bridge Technique | | 96 | |
| Operative Technique | | 96 | |
| Physiology and Physiological Chemistry | | 144 | |
| Prosthetic Dentistry Technique | 48 | 96 | |
| | 448 | 512 | 960 |
| **Junior Year** | | | |
| Crown and Bridge Technique | 96 | 96 | |
| Crown and Bridge Lectures | 16 | 16 | |
| Crown and Bridge Practice | | 96 | |
| Dental Metallurgy | 16 | | |
| Materia Medica | | 32 | |
| Operative Dentistry Lectures | 16 | 16 | |
| Operative Dentistry Technique | 72 | | |
| Operative Dentistry Practice | 72 | 144 | |
| Orthodontia Lectures | | 16 | |
| Orthodontia Technique | 144 | | |
| Pathology, General | 80 | | |
| Pathology, Special | | 16 | |
| Prosthetic Lectures | 16 | 16 | |
| Prosthetic Practice | | 96 | |
| Therapeutics | | 16 | |
| Clinics | | 48 | |
| *Electives | | 48 | |
| | 528 | 656 | 1184 |
| **Senior Year** | | | |
| Crown and Bridge Lectures | 16 | 16 | |
| Crown and Bridge Practice | 144 | 144 | |
| Operative Dentistry Lectures | 16 | 16 | |
| Operative Dentistry Practice | 192 | 192 | |
| Oral Surgery Lectures | 32 | 16 | |
| Oral Surgery Practice | 48 | 48 | |
| Orthodontia Lectures | 16 | 16 | |
| Orthodontia Practice | 72 | 72 | |
| Prosthetic Practice | 72 | 72 | |
| Theory and Practice Conference | | 32 | |
| †Electives | | | |
| | 608 | 624 | 1232 |
| | | | 4208 |

* Ps chology, Elementary Economics, Radiography, Odontology, etc.

† Students who are advanced in practice should be allowed to specialize in any part of the curriculum, especially in the second semester.

## ONE-YEAR ACADEMIC PREREQUISITE

| | First Semester | Second Semester | |
|---|---|---|---|
| Freshman Academic Year | Hours | Hours | |
| Animal Biology No. 1 General Zoology | 96 | 96 | |
| Chemistry, Advanced, General, and Qualitative | 64 | 80 | |
| Electives | 48 | 96 | |
| Military Drill (required University of Minnesota) | 48 | 48 | |
| Rhetoric No. 1 | 48 | 48 | |
| | 304 | 368 | 672 |
| Freshman Year Dentistry | | | |
| Anatomy, General Descriptive | 96 | | |
| Anatomy, Dissection | | 144 | |
| Anatomy, Histology and Embryology | 96 | | |
| Anatomy, Dental, Lectures | 16 | 16 | |
| Anatomy, Dental, Laboratory | 48 | 96 | |
| Chemistry, Organic | 96 | | |
| Physiology and Physiological Chemistry | | 144 | |
| Prosthetic Technique | 96 | 96 | |
| | 448 | 496 | 944 |
| Junior Year | | | |
| Bacteriology, General | 80 | | |
| Crown and Bridge Lectures | 16 | | |
| Crown and Bridge Technique | 144 | 144 | |
| Dental Metallurgy | 16 | | |
| Materia Medica | | 32 | |
| Operative Dentistry, Lectures | 16 | 16 | |
| Operative Dentistry, Technique | 144 | | |
| Operative Dentistry, Practice | | 144 | |
| Orthodontia Lectures | | 16 | |
| Orthodontia Technique | | 144 | |
| Pathology, General | | 80 | |
| Pathology, Special | | 16 | |
| Prosthetic Lectures | 16 | 16 | |
| Prosthetic Technique | 144 | | |
| Prosthetic Practice | | 96 | |
| | 576 | 704 | 1280 |
| Senior Year | | | |
| Crown and Bridge Lectures | 16 | 16 | |
| Crown and Bridge Practice | 144 | 144 | |
| Operative Dentistry Lectures | 16 | 16 | |
| Operative Dentistry Practice | 192 | 192 | |
| Oral Surgery Lectures | 32 | 16 | |
| Oral Surgery Practice | 48 | 48 | |
| Orthodontia Lectures | 16 | 16 | |
| Orthodontia Practice | 72 | 72 | |
| Prosthetic Practice | 72 | 72 | |
| Theory and Practice, conference | | 32 | |
| Therapeutics | 16 | | |
| Electives | | | |
| | 624 | 624 | 1248 |
| | | | 4144 |

SUMMARY OF HOURS

| Subjects | Present 1914-15 | Four-Year Course | Academic Prerequisite |
|---|---|---|---|
| | Hours | Hours | Hours |
| Anatomy, General Descriptive | 128 | 96 | 96 |
| Anatomy, Dissection | 192 | 144 | 144 |
| Anatomy, Histology and Embryology | 128 | 96 | 96 |
| Anatomy, Dental. Lectures | 32 | 32 | 32 |
| Anatomy, Dental Laboratory | 96 | 144 | 144 |
| Animal Biology No. 1 (General Zoology) | | 192 | 192 |
| Bacteriology | 32 | 80 | 80 |
| Chemistry, Advanced, General, and Qualitative | 144 | 144 | 144 |
| Chemistry, Organic | 96 | 96 | 96 |
| Clinics | | 48 | |
| Crown and Bridge Lectures | 32 | 64 | 48 |
| Crown and Bridge Technique | 288 | 288 | 288 |
| Crown and Bridge Practice | 288 | 384 | 288 |
| Dental Metallurgy | 16 | 16 | 16 |
| Electives | 48 | 48 | 144 |
| Materia Medica | 32 | 32 | 32 |
| Military Drill (required University of Minnesota) | | | 96 |
| Operative Dentistry Lectures | 64 | 64 | 64 |
| Opertive Dentistry Technique | 144 | 168 | 144 |
| Operative Dentistry Practice | 528 | 600 | 528 |
| Oral Surgery Lectures | 48 | 48 | 48 |
| Oral Surgery Practice | 96 | 96 | 96 |
| Orthodontia Lectures | 48 | 48 | 48 |
| Orthodontia Technique | 144 | 144 | 144 |
| Orthodontia Practice | 144 | 144 | 144 |
| Pathology, General | 32 | 80 | 80 |
| Pathology, Special | 16 | 16 | 16 |
| Physiology and Physiological Chemistry | 144 | 144 | 144 |
| Prosthetic Lectures | 32 | 32 | 32 |
| Prosthetic Technique | 336 | 330 | 336 |
| Prosthetic Practice | 240 | 240 | 240 |
| Rhetoric | | 96 | 96 |
| Theory and Practice, conference | 32 | 32 | 32 |
| Therapeutics | 16 | 16 | 16 |
| Total | 3584 | 4208 | 4144 |

1 day—8 hours
11 half days—1 week—44 hours
16 weeks—1 semester—704 hours
2 semesters—1 year—1408 hours

Dr. Owre's report was discussed by Dr. Hoff, Dr. Sharp, Dr. Orr, secretary of the state examining board, Dr. Andrews, member of the state board, Drs. Kennerly, Hartzell, Breene, and Weiss.

Dr. Hoff announced that the report would be presented before a business session of the Association on Saturday for action by the Association.

The meeting then adjourned until the next morning.

At the next session, called to order Saturday morning, March 21, by Dr. Hoff, vice-president, in the University of Minnesota, the first order of business was the consideration of the president's address.

The first item in the president's address for consideration was the recommendation that "organized research work should be done within the schools themselves, acting in a reciprocal way, rather than through the medium of our dental societies."

The question was discussed by Drs. Owre, Kirk, Hartzell, Hoff, Sharp, after which Dr. Sharp moved that a committee on research be appointed for the purpose of formulating plans and bringing about a coalition of the work of this character in the schools.

Dr. Kirk offered as an amendment to the motion that Dr. Smith be made a committee of one to bring in a report on that matter. The amendment was voted upon and carried, after which the original motion was put and carried.

The next item for consideration was the action of the National Dental Association in investigating and rating the dental schools of the United States, and the question of urging the Carnegie Foundation to make an investigation and rating of its own.

Dr. Kirk called attention to the fact that the Carnegie Foundation had signified its intention of making such an examination and rating at some future date.

Dr. Owre moved that the secretary be instructed to correspond with the Carnegie Foundation and expressed the appreciation of the Association of its interest in the matter.

The motion was carried.

After discussion of the lack of provision in the standing resolution for graduates from other schools who wish to enter schools of the Association and become candidates for the degree, the following resolution was presented and adopted:

*Resolved,* That graduates of dental schools not holding membership in this Association may be admitted to the senior year in schools holding membership in this Association, provided that their preliminary training is equal to the training required for the admission of students to our university schools; and they may become candidates for graduation after fulfilling the requirements of the senior year, provided that they pass examination on all the subjects that are final in the first and second years of the course before coming up for final examination for the degree.

After a hearing of Dr. Hoff's report for the executive committee on the dental school of Washington University it was voted to admit the school to membership. Dr. Kennerly, dean of the school, was presented to the Association.

The question raised by Dr. Sharp with regard jointly to establishing special lecture courses on different subjects was then discussed.

It was finally voted that in any instance, where any member of the Dental Faculties' Association is contemplating such an arrangement, it make the preparation and plan known to the secretary, so that the secretary may send to each constituent member announcement of the fact, with a view to making an organized reciprocal arrangement under that plan.

Dr. Hoff presented the report of the executive committee as follows:

*To the Dental Faculties' Association of American Universities:* At the last session of this body, I was asked to formulate a suggestion that would more equitably adjust the matter of advanced standing for students having had partial courses in medicine who were desirous of transferring to the dental course.

In accordance with past practices and present rulings, we have not credited work done in a medical school unless the student has completed the medical course and has the medical diploma, except that we allow such undergraduate medical students to take advanced standing on individual subjects, if the medical work has been taken in the university with which the school in dentistry is associated. It ordinarily develops that medical students with junior standing have completed all the medical science subjects required in the dental curriculum, and it does not seem equitable that such students should be held to the same time limits as entering freshmen who have never had the medical science training. Such subjects as chemistry, anatomy, histology, physiology, and bacteriology are as thoroughly taught in medical as in dental schools, and together they should constitute more than a year of time in the dental curriculum. There is no reason why a student having credit for such subjects would not be capable of completing in the remaining two years of the dental course all the applied scientific subjects, as well as the technical and clinical subjects of the curriculum.

I therefore suggest for your consideration, the following resolution:

"*Resolved,* That undergraduate students of reputable medical schools, who have completed at least two years' work, and who have credits for the full requirements in chemistry, anatomy, histology, physiology, and bacteriology, may be given credit on examination for these studies, and be advanced to the second year in the dental curriculum."

Respectfully submitted,
N. S. Hoff.

Discussion of the report of the executive committee was deferred until the afternoon session.

The meeting then adjourned until the afternoon session.

At the afternoon session the first order of business was the consideration of the resolution presented in the report of the executive committee.

Dr. Kirk suggested that because of the fact that such a resolution would involve conflicts with statutory legislation in many states, final action should be postponed until this question has been referred to a committee, to report on later.

It was voted that this question be referred to the executive committee.

The next order of business was the consideration of the report of the educational committee by Dr. Owre.

Dr. Owre re-read his report, as the full membership of the Association was not present when it was first presented.

Dr. Sharp suggested that a resolution be presented lengthening the curriculum to four years.

Dr. Kennerly suggested that if the report and recommendation be adopted, it be at not too early a date, as it would be necessary for him to have time to think over plans for the future.

Dr. Owre did not think that the Association could take any positive action at the present time, as whatever the Association did would have to be referred back to the governing bodies of the institutions represented for approval.

Dr. Hoff discussed the feature of the report which presented the alternative of one year of academic training as a prerequisite to dental study, and was inclined to favor this in preference to the lengthening of the curriculum to four years.

Dr. Kirk thought that the object of the four-year course was to teach more dentistry and establish a better standard, and in order to do that it was necessary to have more time in the dental course.

Dr. Owre said what the committee wished to recommend was the four-year dental curriculum rather than the addition of one year of academic training to the preliminary educational requirements.

The subject was further discussed by Drs. Weiss, Walls, and Orton, of the University of Minnesota.

Dr. Kirk moved, and Dr. Sharp seconded, that "We accept the report of the educational committee, and that we recommend the four years' curriculum as set forth in the report for adoption by the schools of this Association."

After discussion of the motion by Drs. Breene, Kirk, Weiss, and Walls, it was carried.

Dr. Kirk thought one of the best means of putting into force the four-year curriculum would be to secure the co-operation of the legislative authorities, with a view to having legislation that would require the four-year course as a requirement for license to practice dentistry, and asked for some suggestions from the members with a view to securing this co-operation.

Dr. Owre thought it would be well to acquaint the National Dental Association and the National Association of Dental Examiners with the action taken, and possibly suggest that this question be made a matter of consideration at their next session.

Dr. Owre moved, and Dr. Kennerly seconded, that the secretary be instructed to communicate with the officers of the National Dental Association and the National Association of Dental Examiners, to inform them of the action taken and to send them a copy of the report with the proposed program.

Motion carried.

The next order of business was the election of officers for the ensuing year, which resulted as follows:

*President*—Dr. N. S. Hoff, Ann Arbor, Mich.
*Vice-president*—Dr. F. T. Breene, Iowa City, Iowa.
*Secretary-treasurer*—Dr. Edward C. Kirk, Philadelphia.
*Executive Committee*—Dr. J. G. Sharp, chairman, one year, Dr. J. H. Kennerly, two years, Dr. F. T. Breene, three years.
*Educational Committee*—Dr. E. H. Smith, one year, Dr. E. C. Kirk, two years, Dr. Alfred Owre, chairman, three years.

The next order of business was the selection of the time and place of the next annual meeting. The place of the next meeting having been decided upon, namely, San Francisco,* the time of the meeting was left to the decision of the executive committee.

The meeting adjourned.

# SEVENTH ANNUAL MEETING

The seventh annual meeting of the Dental Faculties' Association of American Universities was called to order February 24, 1915, by the president, Dr. Hoff, in the Evans Institute, Philadelphia, Pennsylvania.*

Dr. Breene was on motion made secretary pro tem, in the temporary absence of Dr. Kirk.

Membership universities were represented as follows: Harvard, Dean Eugene H. Smith; Iowa, Dean F. T. Breene; Michigan, Dean N. S. Hoff; Minnesota, Dean Alfred Owre; Pennsylvania, Dean E. C. Kirk; Washington University, Dean J. H. Kennerly.

Visitors: Drs. W. P. Cooke, L. M. S. Miner, Harvard; Dr. C. R. E. Koch, Northwestern; Dr. H. M. Seamans, Ohio; Dr. Herman Prinz, Pennsylvania; Dr. Eugene S. Talbot, Chicago.

The president, Dr. N. S. Hoff, then read his address as follows:

*Members of the Dental Faculties' Association of American Universities meeting in Special Session:* We are convened today in response to the call of our executive committee, further to consider the resolution adopted at our last annual meeting in Minneapolis, March 21, 1914, in the matter of extending the college curriculum to four years; and also to consider such other pertinent matters as may properly come before us at this time.

In view of the fact that our dental announcements are usually printed in June, there can be no sufficient notification to prospective students until June, 1916, too late to enable them to prepare for the course. For this reason your executive committee thought it necessary to call this meeting at this time and place. I trust every college holding membership in this Association is represented by a duly authorized delegate who has come prepared to act definitely on this important question now before us for final decision. This is necessary before we can intelligently discuss the details of administration.

At the last annual meeting a suggestion was made that the action taken by this body and the advisability of similar action by all dental colleges should be brought to the attention of the National Dental Association and the National Association of Dental Examiners. This I believe our secretary did in a formal communication, and your president had a personal interview with the president of each of these organizations, in which he urged them to make such recommendations as they deemed the cause justified, in their respective addresses to these bodies. As you are all doubtless aware, the matter received much favorable comment in both of these organizations at their annual meetings. We have also done what was possible by personal interviews and correspondence with various executive officers of colleges and other dental organizations that are especially interested in this subject, and there seems to be no difference of opinion in the minds of the majority of thoughtful teachers and professional men as to the necessity for more time for the administration of a proper and adequate course of instruction that shall qualify for the practice of modern dentistry.

The National Dental Faculties Association, at its annual meeting recently held, decided, after a careful and rather strenuous debate, with final and practical unanimity, to inaugurate a four-year course of instruction, beginning with the college year of 1917-18.

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* Owing to the distance involved, San Francisco proved impracticable for most members.

Two of our dental editors have editorially commented on this proposition adversely. We have not seen or heard any other adverse comment. It would seem from these facts that our action last year was timely, and that we should complete the initial move by adopting such further measures at this time as may be needed to carry our resolution into effect.

It has been suggested that it might be diplomatic, and that we should serve our cause more effectively, should we postpone the inauguration of the four-year course another year until all the schools were ready to join in the movement. This would undoubtedly give us more time to perfect our plans, and would also give time for the necessary amendment of our registration laws to conform with the new course. This would also make it easier for some colleges to prepare for the change, and give the prospective student a chance to make his preparations.

On the other hand, the seven schools of this Association have, tentatively at least, committed themselves to the course for the session of 1916-17, and two of them have actually announced it. Also the Northwestern University Dental School has decided to start a four-year curse, beginning with the session of 1916-17. In view of these facts and our published action, would it be wise for us to hesitate? Can we afford to lose the time and risk the possibility of a reversal of the action taken by the other schools? Have we any assurance of favorable legislation unless we first demonstrate to the profession the value of more time for instruction, and its practicability?

No doubt we have all been looking forward to this four-year course as a means of making our teaching work more efficient, and I am aware that much time and thought has been spent in formulating a more efficient course of study by several of our executive officers, with the hope of definite action at this meeting.

Our educational committee presented a suggestion for an ideal curriculum at our meeting last year, which with new suggestions may serve at this time as a basis for our discussion. We should all have well-conceived ideas that may be helpful in arriving at the best conclusion, and it is only by the exchange of ideas and their critical examination that we shall be satisfied with the action we may take in regard to this most important movement. In other words, we should have a full and free discussion of this matter from every standpoint—the pedagogic, the practicable, and most of all, from the ideal. If it should become possible for us to devise a practicable and ideal curriculum we shall have accomplished, it seems to me, all that this time and occasion demands.

It is the tradition of this body, based upon an article of our constitution, that the largest possible freedom of internal management shall always rest with the individual membership. Therefore we can and should discuss this problem unhampered by any possible legislation that may lead to personal embarrassment to any of our members.

Owing to the fact that a full representation of the membership of this Association may not be possible at the regular annual meeting this year,[4] because of the great distance, it may seem desirable for us to consider at this meeting some items of business that should more appropriately be deferred to the annual meeting. By the unanimous consent of those present it seems to me that it would be proper, and we should feel competent to take any action that may be necessary at this meeting effectively to forward the interests of the Association. Any or all such actions may and properly should be submitted to the annual meeting for ratification, or for reconsideration if occasion demands.

Your president has taken the liberty of inviting to this meeting representatives from the dental colleges connected with Ohio State University, Illinois University, and Northwestern University. As these schools are qualified for membership in this Association, and are not connected with any other similar body, and as each has expressed a desire to extend its curriculum to four years, I felt that we should have the benefit of their counsel on this occasion. I trust it may be the pleasure of this body to extend a cordial invitation to the representatives of these, and any other such representatives as may be present, to join us in our deliberations as to ways and means for putting into effect, in the best possible manner, whatever advance in the dental curriculum we shall see fit to adopt.

On motion the address of the president was accepted and approved.

The action of the president in extending invitations to the dental schools of the University of Illinois, the University of Ohio, and Northwestern University to send representatives to the meeting was indorsed by the Association.

On motion the gentlemen representing these schools invited were given the privileges of the floor.

The next order of business was the reading of the report of the secretary-treasurer.

[4] It had been decided to hold the regular annual meeting later in the year, at San Francisco. This plan not having been carried out, however, the meeting here reported automatically becomes the regular meeting for 1915.

He reported that the subject which formed the principal topic of discussion at the previous meeting of the Association, namely, the desirability of lengthening the dental curriculum to four years, had been the subject of correspondence, indicating an increasing interest in the problem and a wholesome degree of activity favorable to the addition of another year to the time of the present curriculum.

Pursuant to the instructions of this Association, expressed in a resolution at the Minneapolis meeting, directing the secretary to communicate the views of the Association favoring the plan of lengthening the course, to the president of the National Dental Association, the president of the National Association of Dental Examiners, and the president of the Pennsylvania State Dental Society, communications had been sent by the secretary to each of the officers designated, setting forth the principal reasons why the Association, generally speaking, was favorable to the adoption of an additional year, and asking that the subject be brought before the respective associations for consideration. The president of the National Dental Association, Dr. Homer C. Brown, embodied the main features of the argument as presented by your secretary, in his annual address, and after discussion by the National Dental Association the question brought forth an expression of opinion favorable to the plan suggested, which was embodied in a resolution by our national body expressive of its approval of the suggestion to make the standard dental curriculum of dental study four academic years in length.

The president of the Pennsylvania Dental Society, Dr. Howard S. Seip, in his annual address strongly recommended favorable action by the Pennsylvania State Society, and a similar vote of approval was passed by that body.

No acknowledgment of the receipt of the secretary's letter had been received from the president of the National Association of Dental Examiners.

The secretary reported further that from the University of Minnesota, College of Dentistry, through its dean, Dr. Owre, he had received notification under date of August 21 that at its meeting on June 10, the Board of Regents of the University of Minnesota adopted the following resolution:

*Voted,* That it is the sense of the board that if the majority of the dental colleges in the Association of University Dental Faculties decide to adopt a four-year course, the University of Minnesota will be favorably disposed toward such an extension of the dental course.

Dean Owre had forwarded to the secretary several communications having an interesting bearing upon the question of the four years' curriculum. Dean Owre had sent to the secretary a detailed exhibit of a proposed distribution of work over the several years of the four years' curriculum, copies of which had doubtless been received by all of the members. The secretary recommended consideration of the plan proposed by Dr. Owre at the present meeting.

The University of California Department of Dentistry through its dean, Dr. Millberry, had forwarded to the secretary under date of November 18 the report of the Council of the University of California, embodying a statement of advanced requirements for admission to the College of Dentistry of the University of California, to become effective at the beginning of August, 1917. The report was not sufficiently clear in itself, requiring for its interpretation reference to the official announcement of courses of the university for 1914-15. The secretary had a detailed exhibit of the character and extent of the advanced entrance requirements authorized for admission to the Dental School of the University of California for consideration.

The secretary reported also that he had received communications from the registrar of the University of Alberta, Canada, also from the secretary of the

Manitoba Dental Association, making inquiry into the status of American dental colleges, with a view to the preparation of a selected list of schools in the United States the educational work of which may entitle them to recognition by the licensing bodies of the Canadian provinces named. Information concerning the schools in the membership of our Association was furnished an answer to these inquiries, and for information regarding those outside our membership the correspondents were referred to the secretary of the National Association of Dental Faculties.

Through correspondence with Dr. Hoff, invitations had been sent to authorities of the universities of Ohio and Illinois to send representatives to this meeting.

The secretary directed attention to certain matters which by resolution at the Minneapolis meeting were laid over for final action at the present meeting: first, the following resolution:

*Resolved,* That undergraduate students of reputable medical schools, who have completed at least two years' work and who have credits for the full requirements in chemistry, anatomy, histology, physiology, and bacteriology, may be given credit on examination for these studies, and be advanced to the second year in the dental curriculum.

Also a report by Dean Eugene H. Smith, of Harvard, as a committee of one upon his suggestion made in writing at the Minneapolis meeting with reference to the promotion of research work within the colleges of our Association membership.

A financial report was submitted.

Motion was made and carried that the report be accepted.

Dr. Eugene H. Smith, appointed by the Association as a committee of one to report upon the question of "organized research work with the schools of the Association, acting in a reciprocal way, rather than through the medium of dental societies," reported as follows:

Some five years ago, Miss Harriet N. Lowell bequeathed to the Harvard Dental School the sum of twenty-five thousand dollars, the interest of which was to be devoted to research work along dental lines. To carry out the provisions of this bequest we appointed men of research ability as a Committee on Research, and that committee has formed among the student body what is known as the Harriet N. Lowell Society for Dental Research. The object of this society is to interest students in research problems. We have at present two students doing research work along the line of pyorrhea. We are taking in as honorary fellows of the society and honorary members of the Research Committee men not affiliated with the school, but who have shown by their work their interest in the question of research. It seems to me that this can be made an important feature in our schools, and what I hoped to bring about was similar organization among dental students for research work in other schools, to the end that reciprocal arrangements might be made for the interchange of ideas, and by that means bring about better results than we could if this work was done under the direction of various dental societies.

On motion the report was accepted.

Dr. Hoff read the following telegram from Dean Millberry, of the University of California College of Dentistry:

*Dr. N. S. Hoff:* Faculty in accord with any action leading to fourth year as preliminary or in dental curriculum. Impossible for us with present facilities to provide fourth year of dental instruction. Can do nothing without regents' action. Matter now pending in regents' committee.—Guy S. Millberry.

The next order of business was the report of the committee on education by Dr. Owre, chairman, as follows:

The committee has found hearty support of the action of this Association last year in extending the course to four years. Since then the criticisms and suggestions received as to the contents of the curriculum have led us to recommend some modifications in it.

It has been the aim of the committee to economize the student's time and energy, hence it has often been found wise to introduce studies which prepare him for a fuller appreciation of a subject rather than to lengthen the present hours devoted to it, although this has also

been done in several instances. The committee has in all cases guarded against a superficial acquaintance with important subjects.

We have also felt that it would be advantageous to have a program which would allow credits to be gained to some extent in accredited colleges. The studies should be granted enough electives to develop men of power; this also allows the latitude necessary in a country where preliminary education, as well as environment, varies appreciably.

The committee has agreed upon dental faculty control of the curriculum, although the teaching of some subjects must of necessity be done as at present by the other units of the universities.

The total number of hours are increased as compared with last year's proposal, but there is a more even distribution of subjects requiring home study.

The committee has conferred widely with educational experts in allied callings, and the freshman-year program is essentially the result of such conference. While this year might easily be made more specifically dental in character, the committee feels that final action in this matter should come only after wider discussion among dental teachers and dental societies. For instance, descriptive anatomy might be given in the second semester of the freshman year, leaving out either rhetoric or history, economics, or language group. This should be followed by offering histology and embryology in the first semester of the sophomore year, which in turn would allow operative technique to be taught in the second semester of the same year. This would, of course, also increase the available hours for practice. On the other hand, our anatomists prefer that the course in general zoology should be completed before beginning the study of the human body; technical drawing should also be completed before much dental work is started, since it economizes time and energy so effectively. Therefore if any shift is made in anatomy, it might be well to have this subject completed in the first semester. It will be noticed that substitutes are allowed in animal biology and technical drawing—we recommend in the former instance botany, and in the latter case, physics. It may be advisable to substitute physics for technical drawing, or one of the cultural subjects. Furthermore, in regard to substitutes, some latitude must be given to the matriculation committee in each school, in order to meet the educational variations in different localities.

It is the hope of the committee, however, that the universities will make an extraordinary effort to agree on a general plan; deviation from it should only take place as a result of local conditions which cannot be immediately adjusted.

In connection with the freshman-year program, we wish to emphasize that it allows the student to change from dentistry to other courses almost without waste of any kind.

The committee also recommends that the four-year course be started in 1916, which was the time tentatively agreed upon at our last meeting.

Dr. Kirk, as a member of the committee, said he was in agreement with Dr. Owre's idea of preparatory training with a view to developing the highest intellectual efficiency, or what he had called "spiritual development," but he thought that this should not be incorporated in the dental curriculum. He was in full accord with the plan of adopting a four-year curriculum, but he felt that the additional year should provide for strictly technical and professional instruction in dentistry.

Dr. Smith, as the third member of the committee, agreed with the plan of making the dental course four years, and also suggested that a plan be devised by which a man might be able to take both the medical and dental courses in, say, five years. He thought in this way many medical men might be attracted to dentistry, and that altogether it would make for a better educated class of men in dentistry. His plan was to have men enter the medical school as at present, and in the third year have the medical schools accept dental studies as elective toward the medical degree, and at the end of five years allow the man to graduate as an M.D. and D.D.S. or D.M.D.

## FOUR-YEAR COURSE

[The requirements for admission are graduation from a four-year high school, or the same as for admission to the freshman class of the College of Science, Literature, and the Arts, and should include one unit of general chemistry. Manual training is recommended.]

| | First Semester | | | Second Semester | | |
|---|---|---|---|---|---|---|
| Freshman Year | Cred. | Hrs. | Half Days | Cred. | Hrs. | Half Days |
| *Animal Biology, Nos. 1, 2, Gen. Zoology (a) | 3 | 96 | 2 | 3 | 96 | 2 |
| *Chemistry, Adv. Gen. and Qual., Nos. 3 and 4 | 3 | 96 | 2 | 3 | 96 | 2 |
| *Rhetoric | 3 | 48 | 1 | 3 | 48 | 1 |
| *Technical Drawing, Nos. 21, 22 (b) | 2 | 96 | 2 | 2 | 96 | 2 |
| History, Economics, or Languages | 3 | 48 | 1 | 3 | 48 | 1 |
| Prosthetic Dentistry Technique | 2 | 96 | 2 | 2 | 96 | 2 |
| | 16 | 480 | 10 | 16 | 480 | 10 |

[Students may be admitted to the sophomore year with 22 credits as a minimum, the remaining 6 credits to be made up prior to entering the junior class.]

| | | | | | | |
|---|---|---|---|---|---|---|
| Sophomore Year | | | | | | |
| Anatomy, Descriptive | 3 | 96 | 2 | | | |
| Anatomy, Dissection | .. | .. | .. | 5 | 160 | 3 |
| Anatomy, Histology and Embryology | .. | .. | .. | 4 | 128 | 2 |
| Anatomy, Dental, Lectures | 1 | 16 | .. | 1 | 16 | .. |
| Anatomy, Dental, Laboratory | 2 | 96 | 2 | 1 | 48 | 1 |
| †Bacteriology, General | .. | .. | .. | 3 | 96 | 2 |
| †Chemistry, Organic | 3 | 96 | 2 | .. | .. | .. |
| Prosthetic Dentistry Technique and Practice | 4 | 192 | 3 | 2 | 96 | 2 |
| | 13 | 496 | 9 | 16 | 544 | 10 |
| Junior Year | | | | | | |
| Crown and Bridge Technique and Practice | 4 | 192 | 3 | 3 | 144 | 3 |
| Dental Metallurgy | 1 | 16 | .. | .. | .. | .. |
| Operative Dentistry Lectures | 1 | 16 | .. | 1 | 16 | .. |
| Operative Dentistry Technique and Practice | 4 | 192 | 3 | 4 | 192 | 3 |
| Orthodontia Technique | .. | .. | .. | 2 | 96 | 2 |
| †Pathology, General | .. | .. | .. | 3 | 96 | 2 |
| Pathology, Special | .. | .. | .. | 1 | 16 | .. |
| Physiology and Physiological Chemistry | 5 | 160 | 3 | .. | .. | .. |
| Prosthetic Dentistry Lectures | 1 | 16 | .. | 1 | 16 | .. |
| Prosthetic Dentistry Technique and Practice | 2 | 96 | 2 | 1 | 48 | 1 |
| | 18 | 688 | 11 | 16 | 624 | 11 |
| Senior Year | | | | | | |
| Crown and Bridge Lectures | 1 | 16 | .. | 1 | 16 | .. |
| Crown and Bridge Practice | 4 | 192 | 3 | 4 | 192 | 3 |
| Materia Medica and Therapeutics | 2 | 32 | .. | 1 | 16 | .. |
| Operative Dentistry Lectures | 1 | 16 | .. | 1 | 16 | .. |
| Operative Dentistry Practice | 4 | 192 | 3 | 5 | 240 | 4 |
| Oral Surgery and Radiography Lectures | 1 | 16 | .. | 1 | 16 | .. |
| Oral Surgery and Radiography Practice | 1 | 48 | 1 | 1 | 48 | 1 |
| Orthodontia Lectures | 1 | 16 | .. | 1 | 16 | .. |
| Orthodontia Practice | 2 | 96 | 2 | 1 | 48 | 1 |
| Prosthetic Practice | 2 | 96 | 2 | 2 | 96 | 2 |
| Theory and Practice of Dentistry and Conference Course in Applied Economics, Jurisprudence, Psychology, Ethics, and Art | .. | .. | .. | 1 | 16 | .. |
| | 19 | 720 | 11 | 19 | 720 | 11 |

* (*a*) Botany, Nos. 1, 2, may be allowed as substitute.
* (*b*) Physics, Nos. 1, 2, may be allowed as substitute.
† See Appendix for description of courses.

One credit hour may be either one recitation hour through one semester, two laboratory hours with outside work, or three laboratory hours without outside work.

One semester = sixteen weeks; one week = forty-eight hours.

APPENDIX.—*Numbers and descriptions of courses, according to University of Minnesota bulletins.*

*General Zoology Nos. 1, 2.*—A survey of the animal kingdom, emphasizing the principles of structure, physiology, embryology, classification, and evolution of animals. Texthook, lectures, and quizzes.

*Botany Nos. 1, 2.*—Laboratory study of the structure of flowering plants, their organs and tissues, followed by a brief study of common types of flowerless plants, leading to the origin of the flower and seed habit; greenhouse study of the behavior of plants; field work, classification of trees and shrubs and of spring flowers.

*Advanced General Chemistry and Qualitative Analysis Nos. 3, 4.*—Lectures and laboratory work. A discussion of the general chemical theories and laws with qualitative analysis.

*Composition and Rhetoric Nos. 1, 2.*—Practical training in the art of writing; the principles of structure and analysis of specimens of good prose.

*Technical Drawing Nos. 21, 22.*—Theoretical and practical graphics, the reading and making of working plans. Projection, sketching, lettering, conventions, renderings, and translations.

*General Physics No. 1* (3 credits).—Mechanics of solids and fluids, sound and heat. Treatment experimental rather than mathematical; the fundamental principles. First part of a general course. Should be taken in conjunction with Course 3, but may be taken separately.

*General Physics No. 2* (3 credits).—Light, electricity, and magnetism. Treatment experimental; the fundamental principles, including those of radioactivity, ionization, X-radiation. and the electrical construction of matter. The second part of a general course in physics. Should be taken in conjunction with Course 4, but may be taken separately.

*General Bacteriology No. 58.*—A study of the biologic and chemical problems of bacterial life; the classification of bacteria; methods of isolation and culture; the composition of germicides, antiseptics, disinfectants, etc.; the bacterial examination of water and the purification of sewage.

*Organic Chemistry No. 32.*—An outline of the chemistry of carbon, including the preparation of some of the more important organic compounds. Special emphasis is laid on those substances used in medicine.

*General Pathology No. 51.*—The study of pathologic processes, including anemia, congestion, embolism, thrombosis, infarction, degeneration and necrosis, inflammation. Study of processes of regeneration and repair. Discussion of causation, classification, and history of tumors. Examination of tumor structure in various types.

The report was, on motion, received and placed on file.

After further discussion of the subject by Drs. Owre, Kirk, Smith, and Koch, the Association adjourned until the afternoon session.

At the Thursday morning meeting Dr. Cooke presented the following resolution:

*Moved*, That we ask the medical schools connected with the universities represented to arrange and adopt a curriculum by which the degrees in medicine and dentistry may be earned at the end of a five years' course.

The resolution was discussed by Drs. Owre, Kirk, Smith, Cooke, Miner, after the resolution was adopted.

Dr. Cooke explained that this resolution did not interfere with any other plan suggested, but was simply offered as one method of training men in dentistry.

Dr. Owre moved that the four-year curriculum be adopted as proposed by the educational committee (see page 49), with such readjustments as are found necessary in each institution.

The motion was seconded by Dr. Kirk.

Dr. Kennerly suggested that another meeting of the Association be held early in the spring of 1916, and that each member of the Association work out a curriculum following as nearly this plan as possible, and that final adjustments be made at that time.

Dr. Kirk thought that all of those subjects not strictly dental should be eliminated from the curriculum, and if found to be desirable as part of the training of the dental practitioner they should be demanded as part of his preliminary admission requirements.

Dr. Owre then presented as an alternative curriculum, one containing strictly dental subjects—the curriculum outlined at the previous meeting.

## (ALTERNATIVE) FOUR-YEAR COURSE

### Freshman Year

| Subjects | First Semester Hours | Second Semester Hours | |
|---|---|---|---|
| Anatomy, General Descriptive | .. | 96 | |
| Anatomy, Dental, Lectures | .. | 16 | |
| Anatomy, Dental, Laboratory | .. | 96 | |
| Animal Biology No. 1, Gen. Zoology | 96 | 96 | |
| Chemistry, Adv. Gen. and Qual. 3 and 4 | 64 | 80 | |
| Prosthetic Technique | 144 | 48 | |
| Rhetoric | 48 | 48 | |
| | 352 | 480 | Total 832 |

### Sophomore Year

| | | | |
|---|---|---|---|
| Anatomy, Dissection | 144 | .. | |
| Anatomy, Histology and Embryology | 96 | .. | |
| Anatomy, Dental, Lectures | 16 | .. | |
| Anatomy, Dental, Laboratory | 48 | .. | |
| Bacteriology | .. | 80 | |
| Chemistry, Organic | 96 | .. | |
| Crown and Bridge Technique | .. | 96 | |
| Operative Technique | .. | 96 | |
| Physiology and Physical Chemistry | .. | 144 | |
| Prosthetic Dentistry Technique | 48 | 96 | |
| | 448 | 512 | Total 960 |

### Junior Year

| | | | |
|---|---|---|---|
| Crown and Bridge Technique | 96 | 96 | |
| Crown and Bridge Lectures | 16 | 16 | |
| Crown and Bridge Practice | .. | 96 | |
| Dental Metallurgy | 16 | .. | |
| Materia Medica | .. | 32 | |
| Operative Dentistry Lectures | 16 | 16 | |
| Operative Dentistry Technique | 72 | .. | |
| Operative Dentistry Practice | 72 | 144 | |
| Orthodontia Lectures | .. | 16 | |
| Orthodontia Technique | 144 | .. | |
| Pathology, General | 80 | .. | |
| Pathology, Special | .. | 16 | |
| Prosthetic Lectures | 16 | 16 | |
| Prosthetic Practice | .. | 96 | |
| Therapeutics | .. | 16 | |
| Clinics | .. | 48 | |
| *Electives | .. | 48 | |
| | 528 | 656 | Total 1184 |

* Psychology, Elementary Economics, Radiography, Odontology, etc.

| Senior Year | | | |
|---|---|---|---|
| Crown and Bridge Lectures | 16 | 16 | |
| Crown and Bridge Practice | 144 | 144 | |
| Operative Dentistry Lectures | 16 | 16 | |
| Operative Dentistry Practice | 192 | 192 | |
| Oral Surgery Lectures | 32 | 16 | |
| Oral Surgery Practice | 48 | 98 | |
| Orthodontia Lectures | 16 | 16 | |
| Orthodontia Practice | 72 | 72 | |
| Prosthetic Practice | 72 | 72 | |
| Theory and Practice Conference | .. | 32 | |
| †Electives | .. | .. | |
| | 608 | 624 | Total 1232 |
| | | | Grand total 4208 |

† Students who are advanced in practice should be allowed to specialize in any part of the curriculum, especially in the second semester.

The motion was further discussed by Drs. Smith, Prinz, Hoff, Cooke, and Kennerly, after which the motion was carried.

Dr. Kennerly then moved that the dean of each school be requested to forward to the educational committee an exhibit of the proposed curriculum which his institution proposes to put into practical effect, so that the educational committee may compare the various suggestions and tabulate the differences and agreements, and report to the Association at the next meeting.

The motion was seconded by Dr. Kirk and carried.

It was the sense of the Association that a meeting should be held in January, 1916.

The meeting adjourned, subject to the call of the executive committee.

# EIGHTH ANNUAL MEETING

The eighth annual meeting of the Dental Faculties' Association of American Universities was called to order January 28, 1916, by the president, Dr. N. S. Hoff, in the Hotel La Salle, Chicago, Illinois.

Membership universities were represented as follows: California, Dean G. S. Millberry; Harvard, Dean Eugene H. Smith; Iowa, Dr. Richard Summa; Michigan, Dean N. S. Hoff; Minnesota, Dean Alfred Owre; Pennsylvania, Dean E. C. Kirk; Washington University, Dean J. H. Kennerly.

Visitors: Dean Arthur Black, Northwstern University; Dean F. B. Moorehead, University of Illinois; Dr. Eugene S. Talbot, Chicago, Illinois.

The first order of business was the address of the president, Dr. N. S. Hoff, as follows:

*Members of the Dental Faculties' Association of American Universities:* We are met in our regular annual session to consider officially some matters of importance in a more conclusive manner than was done at the special meeting of representatives of our schools, called by President James, of the University of Illinois, last summer, at which time the content of the four-year curriculum best adapted to the university dental schools' needs was given very careful consideration. The result of that discussion was the adoption of the following resolution, embodying the fundamental lines on which this curriculum should be constructed:

"*Resolved,* That it is the sense of this meeting that we approve the plan of a four-year course of not less than 4800 working hours, the curriculum to consist of not less than 4200 working hours, to be devoted to such subjects as are deemed essential to the technical and scientific education of the dental practitioner, with the understanding that ancillary subjects shall be elective, and not consume more than 600 hours of the course."

This action seems to have met the approval of our various members, at least there has been no serious criticism made by any member of this body, and so far as we know, the profession has given at least its tacit approval. This resolution probably expresses the general views of all our members, and I have no doubt you are ready to adopt it as the general policy of this Association, and will take such action at this time as you deem necessary to confirm or interpret its meaning more specifically. The discussion of the exact content of the four-year curriculum, at the recent meeting of the American Institute of Dental Teachers in Minneapolis is so fresh in your minds that possibly you may be ready to determine the exact nature of the curriculum at this session and it may be that this important matter is of such concern to us all that you will deem this the proper time to consider in detail this vital problem. To refresh your minds I would suggest that you recall the suggestion made by one of our members that we build our curriculum so that it will fit into the medical curriculum, to the end that dental students desiring to do so may complete it in the medical course by further combining medical subjects, in a shorter time than by taking the various subjects independently. Another proposition strongly urged by several members was that the first year's work be done entirely in the arts departments, making the subjects taken obligatory rather than elective. A third proposition strongly urged by one of our members was that all the subjects should be taught either in the dental department, or by special instructors in the arts department, subject to advisement or control of the dental faculty. There are strong advocates for each of these propositions, and each with good reasons for the adoption of his plan. We may not, however, have time at this session to discuss these various propositions, and possibly we may not think it best to adopt any definite scheme of study to which we are willing to subscribe. The University of Minnesota has already adopted a curriculum, with which you are all familiar, and has put it into effect in the present session. On account of conditions prevailing in that school, they were able to limit the freshman students entering the three-year course last fall to 90, but they had so many students applying that they entered an additional 90 students in the four-year freshman class, the work to be taken largely in the arts department of the university.

Because of the conditions prevailing in some of our schools, it may be impracticable for us to agree on a definite or specific basis, and in time this may enable us better to find out what procedure will produce the best results by allowing each school to work out its own problem in the best way possible, keeping always in mind that we have an obligation to keep our courses in line with the legal requirements of the various communities where our students are likely to locate for practice.

I make this review, and offer the suggestion that you determine at this session, as nearly as may be practicable, all matters that properly concern our associated effort to standardize dental education, so far as schools which are integral parts of standard universities in this country are concerned. In my judgment, the more nearly we can agree to uniformity in the content of our curriculum the more helpful we can be in securing competent administration, and the more we shall be able to influence other schools to adopt a similar standard—a most profitable thing to achieve for the good of the profession and for influencing future legislation regulating registration for practice.

The next order of business was the report of the secretary-treasurer.

The secretary reported that during the year he had received inquiries from various university dental schools regarding requirements for membership in the Association. The matter of granting advanced standing to students from high schools was again brought up for consideration. The secretary also submitted a copy of the revised dental law of Pennsylvania as follows:

After July first, one thousand nine hundred and twenty-one, the State Board of Dental Examiners shall require that candidates for license for the practice of dentistry in the state of Pennsylvania shall have been graduated from a dental school maintaining a course of study consisting of four annual sessions each, in separate academic years; and further: When this provision shall become operative, the State Board of Dental Examiners may examine prospective candidates for license to practice dentistry in the fundamental branches of the curriculum at the end of the second year of the four years' course.

In connection with the lengthening of the dental curriculum to four years the secretary called attention to a resolution passed at a meeting held in Chicago, June 29, 1915, at the request of President James, of the University of Illinois, at which the entire membership of the Association was represented with the exception of the Harvard Dental School and the College of Dentistry of the University of California, these latter being represented by letter. In addition, there

were present by representatives the University of Illinois College of Dentistry, the University of Fittsburgh School of Dentistry, the Northwestern University Dental School, and the Ohio State University College of Dentistry. At the above-stated meeting, in addition to taking formal action confirmatory of the action of the Dental Faculties' Association of American Universities at its meeting held in Philadelphia, February 24 and 25, 1915, providing for the lengthening of the standard dental curriculum to four years in the schools of our Association, the meeting called by President James unanimously adopted the following resolution:

That it is the sense of this meeting that we approve the plan of the four years' course of not less than 4800 working hours, the curriculum to consist of not less than 4200 hours devoted to such subjects as are deemed essential to the technical and scientific education of the dental practitioner, with the understanding that ancillary subjects shall be elective, and not consume more than 600 hours of the course.

In view of the fact that a considerable majority of the schools holding membership in the Dental Faculties' Association of American Universities were present by representatives at the meeting in Chicago called by President James, and voted affirmatively on the foregoing resolution the secretary recommended that the Association take formal action confirmatory of the said resolution, in order that the provisions thereof may become a part of the organic law of the body.

The secretary directed attention to the following resolution presented at the meeting in Minneapolis in 1914, which was laid over for final action at the meeting held in Philadelphia, February 24, 1915, but which was not finally acted upon, with the suggestion that it be finally disposed of at the present meeting:

*Resolved,* That undergraduate students of reputable medical schools, who have completed at least two years' work and who have credits for the full requirements in chemistry, anatomy, histology, physiology, and bacteriology, may be given credit on examination for these studies, and be advanced to the second year of the dental curriculum.

A financial report was submitted.

Dr. Kirk moved, and Dr. Kennerly seconded, the adoption of the following resolution:

*Resolved,* That we confirm the action taken by the meeting of dental college representatives held in Chicago, June 25, 1915, at the request of President James, of the University of Illinois, as follows: "That it is the sense of this meeting that we approve the plan of the four years' course of not less than 4800 working hours, the curriculum to consist of not less than 4200 hours devoted to such subjects as are deemed essential to the technical and scientific education of the dental practitioner, with the understanding that ancillary subjects shall be elective and not consume more than 600 hours of the course," with the understanding that the word elective appearing in said resolution as related to ancillary subjects shall be a function to be exercised by the administration of the respective dental schools and not by the students thereof.

The resolution was unanimously adopted.

The next subject for discussion was the resolution with regard to advanced standing to undergraduate medical students presented at the Minneapolis meeting and not yet finally acted upon.

Dr. Kennerly moved the adoption of the resolution amended as follows:

That they be promoted subject to any unfinished work of the first year, and that the resolution so amended shall apply only to the present three-year curriculum.

The amendment was seconded by Dr. Summa.

Dr. Owre thought the students should be forced to repeat the dental course; that they were already given credit for work done in undergraduate schools of medicine, but thought that it was a question of subjects accepted rather than the number of years of credit.

Dr. Kirk suggested that these men took all these subjects in the medical school, and the question was whether they must lose this time and go back and go over the dental course.

Dr. Millberry asked what provision was made with regard to the four years' course.

Dr. Kirk said this resolution was applicable to the four years' course because of the tendency to force more of the elementary training into the first two years of the four years' course. One other feature Dr. Kirk called attention to was the effect that legislation in the different states would have on this question. For instance, in New York, there was a strong feeling to separate medical from dental teaching; that the Board of Regents was of the opinion that there should be a separation between teaching dentistry and medicine in the fundamental branches. They objected to a teacher of anatomy teaching dental and medical classes concurrently, and the question was whether they would recognize, for dental instruction, anatomy obtained in a medical school.

Dr. Smith did not understand that as the interpretation of the view of the Board of Regents. He thought the difficulty there was that the Board of Regents required that the applicant be certified as having taken three years of study in a registered dental school. Dr. Smith did not think that this resolution would in any way conflict with legislation in any other states, but thought there might have to be some adjustment with regard to New York.

Dr. Kirk said he understood that the New York legislature would probably enact an entirely new law at its next session that would involve important changes in the existing law; for this reason he thought it would be advisable for the Association to get in touch with the Board of Regents for conference and some understanding with regard to changes in the law in harmony with the purpose of the Association. He thought it would be a good idea to present to the Board of Regents the objects of the Association and what it was trying to do.

Dr. Owre thought that the resolution with regard to advanced standing to medical undergraduates should be made more elastic, so as to include not only credit for men who have had one, two, or three years in certain subjects accepted in dental schools, but should also provide for credit to students who have had courses in histology, chemistry, etc.

Dr. Kirk suggested that for men outside of the medical course that was already taken care of by the university authorities. He thought the two factors to be considered were credit for time and subjects taken in the medical course.

Dr. Black cited the case of two students who applied for advanced standing in their school, one a medical graduate and one with two years in medicine. He said that the graduate under the rules was given credit for a year and the other man was not given any credit at all, although both had had the same amount of education in what was applicable to the dental course.

Dr. Millberry thought the resolution should be worded so as to give credit for such work as had been completed, and the student be allowed to carry on the work.

Dr. Smith thought that a man with four years' training in a medical school should be able to finish the dental course in two years.

Dr. Kirk suggested that this resolution did not attempt to provide for that, but it was intended simply to establish the standing of the man with two years' medical training.

Dr. Owre said the only feature he objected to was that instead of years the resolution should be expressed in terms of credit.

After some further discussion by Dr. Moorehead, Dr. Prinz, and Dr. Summa, the resolution was adopted as amended.

On motion a committee of three was appointed, with the secretary as chairman, to make a thorough investigation into the status of the Japanese schools.

Dr. Hoff appointed as such committee Drs. Kirk, Owre, and Millberry.

It was voted that the secretary furnish copies of the reports of committees and officers to the members of the Association before the annual meeting for consideration by the different members.

Dr. Talbot asked the privilege of presenting to the Association a short paper that he had prepared on the subject of dental education.

Dr. Talbot's paper was made the special order of business for the afternoon session at 2:30 p.m.

The meeting then adjourned until the afternoon session.

The first order of business for the afternoon meeting was the reading of a paper by Dr. E. S. Talbot, Chicago, Ill., entitled "The Pathologic Vision," as follows:

I wish to thank you for your kindness in inviting me to be present at your annual meetings, which I always enjoy immensely. I regard this organization as the medium through which all progress in dental education must proceed. Upon your actions will depend the future welfare of our specialty. Each gentleman, dean of his respective school, must weight well each step taken by this organization, since there are from forty to forty-five other schools which must follow the example of your action.

You have come together at this time from different parts of the country for the purpose of consulting each other as to the best methods of conducting your schools for the benefit of your pupils. We all have different views as to how the future dentist is to be educated. Meeting as you do from year to year these views are discussed and crystallized, by which good results are obtained.

To further this movement in my own way, I have passed through quite a different training from most of you. I might say that this training has been in almost the opposite direction from that of those present. My teaching for over thirty years has always been confined to medical schools. It would not be strange, therefore, if my ideas of "how the dentist should he educated" should differ somewhat from yours.

In 1880 a few of us medical graduates established the Section of Stomatology in the American Medical Association, of which, for the last thirty years, I have from year to year been elected secretary. The object of this movement was twofold—first to educate the medical profession along dental lines, and second, to influence dentists to obtain a medical education. How well this work has been accomplished may be ascertained by reading the report of Dr. George V. I. Brown, read before the Association in 1914 at the meeting held at Atlantic City. Let me say in passing that not a single paper upon the subject of operative dentistry has been read since the establishment of the section. All papers have been confined to pathology and treatment of diseases of the face and jaws, and their relation to other diseases of the body. I mention that point at this time to explain what I have to say later.

As secretary of the Section of Stomatology of the American Medical Association, I wish to say to you that the position has not been an easy one, for the reason that in all these years, although we felt that we were on the right trail, we could not see our way clear or know how we were to progress. In the past four or five years, however, we were able to see two faint glimmerings on the horizon, which have been growing brighter and brighter, until about two years ago the two spots became brilliantly lighted—we could then make out their meaning. One spelled "dental research," the other a much larger and broader field, "diseases of the body due to infection from the mouth." These two subjects will settle the dental educational question, Is the dental profession in a position to do research work?

Let us see what Professor Minot[5] says:

"The process of scientific inquiry involves special qualifications which cannot be disregarded by one who thinks of trying it. . . . An ingenious and inventive imagination is necessary. The very soul of research is the highest degree of modesty. . . . The research worker must possess the faculty of accurate observation. . . . No young man without perseverance and severe training can expect to make his mark in research work. The true investigator requires the right training of the brain rather than that of the eye. This requires a broad, scientific education. . . . Successful scientific research, then, requires three mental

[5] Minot, Certain Ideals of Medical Education, *Medical Research and Science* 2:279.

faculties—intelligence, concentrated attention, and judgment. Intelligence, therefore, is essential to master methods. Concentrated attention is all-important, and one of the most difficult virtues to command. To succeed in a given undertaking one must concentrate his mind on the subject for days, months, and often for years. Judgment is one of the highest acquirements. It is one thing to collect data, but to place it on an intelligible basis for general observation is quite another proposition."

From what has been said in regard to research, the dentist must possess a broad general academic education. He should thereby possess a knowledge of the fundamental principles of all sciences. This knowledge will permit him to compare these principles and demonstrate their relationship to one another. This must include biology in all its departments, chemistry, and physics. He must be taught early to think.

To do medical research work, he must have taken a full and complete course in all branches of medicine. This is necessary in order that the investigator may compare and understand diseases in different structures of the body.

As a rule, research workers are born and are not made. They must possess a real desire for this kind of work. In order to do such work one must give his entire time and thought to it, forsaking pleasure, recreation, and almost family ties, to accomplish the desired results. Money will not purchase the genius for research. The underlying principles are so essential at the present day that one cannot stumble on to original work.

It is not necessary for me at this time to discuss the second subject, "diseases of the body due to infections from the mouth." We are all familiar with the fact that the dentist knows very little, if anything, about this subject, for it is not taught in the dental schools.

What are the shortcomings in our present methods of teaching? The first thing the student requires to know on entering the school is, how much will it cost and how long will it take? After he has entered the college, the second question is what is required for graduation and how little work is really necessary to graduate? He is told that to graduate he must make so many gold, amalgam, cement, and other fillings, crowns and bridges, and artificial dentures of various kinds. As the student progresses he soon learns, through contact with the teachers, students, and surroundings, that the atmosphere of the school is principally mechanical. After a short sojourn in the schools he becomes familiar with the clinics, both operative and mechanical, and he naturally asks the question, why bother with the fundamental principles of medicine, when the mechanics are required for graduation and the principal thing in practice is to become a good operator and mechanical dentist? The result is that the student skims through the fundamental principles of medicine, and when he gets into practice his knowledge of the subject is almost *nil*.

The result is that the dental graduate has spent three or four years and has neither learned how to study nor think, and is not an all-around educated man.

The research problem and the pathologic vision are now actually before us. The dental profession today is unable to cope with either subject. The mechanics of dentistry as taught in our dental schools is for the purpose of restoring lost pathologic conditions, although in our ignorance a large per cent of such mechanics increases pathologic lesions.

The only thing to do is to begin to educate the coming students in such a manner that they can handle the situation and obtain the respect of the medical profession. The general health of the patient is worth more and is of more importance than one or all of his teeth. The pathologic vision, therefore, must supplant the mechanic vision which the student worships in his college training. The broad general principle of medicine must supplant the minor specialty of dentistry. How shall this be done?

The dental student must take his academic training and enter the medical schools with the medical students for the first two years and get due credit for the same. He can then finish his special dental training in the last two years, which is all that is necessary. He should not enter the dental clinics until he is prepared to take up his dental work. By this method, he will have obtained a broad general knowledge for research work, and he will know something about the pathologic conditions of the body due to infections from the mouth.

## DISCUSSION

Dr. E. H. Smith, Boston: Dr. Talbot says that the research worker should be trained in medicine; it is interesting in this connection to note that Professor Minot, whom he quotes, was not a medical man but a doctor of science, and yet there is no doubt that during his life he was one of the leading embryologists of the world; also Professor Folin, who has done such wonderful work in physiological chemistry, and Dr. Martin, one of our leading research workers, are both doctors of science and not medical men at all. Not long ago I was talking to a prominent scientist on this subject of research, and I made this statement to him: "Of course, for dental problems the best-fitted man is the man who has had a thorough medical and dental training." His reply was, "I don't think so at all. I do not think the research worker necessarily needs to be a medical or a dental man, but he should be thoroughly grounded in chemistry, and should have a mind trained to think."

Dr. Edward C. Kirk, Philadelphia: As this paper is to be made a part of the proceedings of this Association, I do not think it should go by without some comment. I want to say for myself that I am heartily in accord with what I may characterize as the spirit of Dr. Talbot's paper—that is to say, the ends which he desires to attain in the education of the dentist. I have no differences with him with regard to his ideal. I do differ with him as to his method of attaining that end. I am more and more convinced that in any system of education, not only dentistry or medicine, but engineering, divinity, or plumbing, whatever it may be, we should start from the first with the idea that, that particular thing is what the man is going to do, and from the first educate him up to a high standard in order that he may efficiently functionate with respect to his calling and the kind of service he is to render to humanity. I differ with him also in his belief that the best way to inculcate the research ideal in the mind of the dentist is to have him take two years in a medical school. I object to it on the ground that by so doing you defer the dental education, and divert his mind from the objective of all his education. I am unable to comprehend why under the proper direction it is not just as possible, just as practical, to develop the research ideal in a dental school as in a medical school—the brand or name put upon a school does not alter the question of the ideal of the system of education. Dr. Talbot knows, and anybody who has looked into the history of the medical profession knows, that it is the tendency on the part of the medical profession to arrogate to itself a monopoly of these high ideals for which Dr. Talbot contends; they apparently do not want anyone else to assume the right to have anything to do with any department of the healing art unless he is stamped with the hall-mark of what is called medicine. Medicine is an old and venerable calling, and I revere no calling more than I do the medical profession but I regard it as a fault in the medical attitude of mind, that because medicine has pre-empted the right of jurisdiction in relation to the human body, its functioning in health and its abberations of normal functioning in disease, that therefore it is regarded as somehow wrong or out of line for the dentist, who has dedicated himself to a special department of the science and art of healing and has become expert in that specialty, to be the final arbiter in matters pertaining to the teeth.

In saying that, I fully recognize that we have been deficient, that we have failed in various respects to live up to the opportunities that confront us, opportunities that carry equally great responsibilities, but I contend, now that we have pre-empted this field, we must live up to its opportunities and be masters of the situation, and I think we should do it on the broad basis of our own educational system. I do not think it is true that we can get this research sense described by Professor Minot and approved by Dr. Talbot, and I am sure, approved by all of us, only through the medical course—I do not believe that is the only way to do it. I believe we can and should construct an educational system so broad in its character as to be an inspiration for research in properly organized dental schools, one which shall be just as much an inspiration toward research work, toward that broad grasp of pathological principles, as is assumed to exist in the medical schools. I feel that we must be permitted to try this out, and if we are in error and have ultimately to fail, we can then fall back on medicine; but let us first try it out on our own educational plan and see if we cannot produce a practitioner that will not only be a credit to the dental educational system, but one that can meet on more than equal terms with the representative of any other medical specialty. It is upon this point, the method of attaining the end, that I have offered my criticism of Dr. Talbot's system. I think he claims too much when he presents the idea that it is only through the two years' course of instruction in a medical school that the student can get that kind of inspiration which Dr. Talbot desires. If he fails to get that kind of inspiration in the dental school, then I should say that the dental school is under just criticism for failing to furnish it.

Dr. Talbot knows, as we all know, that there are many men of many minds who come to us as students. There is that type that wants to get the diploma with the least expenditure of time, energy, and money. He is the type of man who would be glad if we would sell him a diploma. There is another type of man who wants to get the most out of the course, and these are the men we want to take care of. These are human qualities, which are not peculiar to either dentistry or medicine alone.

Summed up, then, my idea is that in inaugurating our system of dental education for the future we should start out with the ideal that we should begin to educate the dentist from the beginning, and give him his whole education as far as professional education is concerned in a dental school properly equipped to do that; unless, possibly, in the reorganization of medical education, it should make provision for the kind of equipment that we know we must have to make efficient dentists—but that they are not willing to do and probably never will do; they do not do it for surgery, for gynecology, for ophthalmology with the fulness and completeness that it should be done for these specialties. In the nature of the case it cannot be done in a four years' course, hence the necessity for special postgraduate medical instruction in order to develop the specialist in his specialty. Under existing circumstances dentistry must stand on its own foundation, and we must see to it that, that foundation is sufficient.

Dr. Smith: I would like to ask Dr. Kirk if he thinks the present training in surgery is sufficient to make an efficient surgeon?

Dr Kirk: No; nor is that for oph halmology, which I think is one of the most imperfectly arranged courses of instruction of any of the medical specialties. It is all very well for the ophthalmologist to determine refractive errors or to take out an eye, but he does not care to have anything to do with the adjustment of spectacles, nor does the surgeon have much to do with the prosthetic relations of his art. This is turned over to the mechanical man. The ophthalmologist should have as part of his elementary training for his specialty as good a technical course in technique as the optician must have. There is a little touch of human frailty in these things which makes the man who does the diagnosis and prescribing a more "respectable citizen" than the man who does the practical work of filling the prescription. If you will look up the history of the surgeon in France and England, you will see that they were originally bloodletters and barber-surgeons. It is a very romantic history through which they passed before they were considered to be on an equality with the medical practitioner. The inheritance of that feeling has come down to us and exerts its influence, but in a democratic country like this the man who renders the most efficient service is after all the real aristocrat. Do you not think so, Dr. Talbot?

Dr. Talbot: Yes, I think there is that tendency.

Dr. N. S. Hoff, Ann Arbor: It seems to me that if we were to take a step like this, it would be somewhat revolutionary in character; it would be so radical that we would have to change materially our ideas in regard to dental professional education. I cannot bring myself to the same conclusion that Dr. Talbot has expressed in his paper, that two years of medical preparatory work in the study of fundamental sciences would equip or prepare a man to become a research worker, even though he may have had the preliminary academic training required for admission to the medical course. My own observation has been that a man who equips himself for research work of a scientific character must be a truly scientific man to begin with. He should not only be a thoroughly educated man, and have the necessary knowledge, but he must have the spirit of research. I believe Dr. Talbot referred to this point in the quotation he made—that the man must have the spirit of research within him. I cannot conceive of a man, even though he bad the spirit of research, doing effective work in dental lines unless he knew something of the practical aspect of dental practice. These criticisms by Hunter, that have been so much discussed in the last few years, with regard to pathologic conditions due to faulty dental practice, necessarily come from a man who has had long experience in clinical medicine, as well as a broad education in observing the phenomena of pathology. His observations and intelligent interpretation of the phenomena he observed led him to call our attention to the practical bearings of this subject on our clinical practice, in such a manner as to arouse our indignation at first. and to create a great deal of excitement in our professional world; yet when we come to sift the matter down, we do not see anything so radically wrong in his statements. They are not so revolutionary as we at first supposed, and finally we seem to have come into harmony with him, and now we are taking such steps as shall overcome our lack of training and practice in that direction. Medical knowledge must be an important item in the instruction we impart to our dental students, but it seems that we shall have to put most of our emphasis, for the present, on technical instruction. I sympathize to a large degree with Dr. Kirk's position that a strictly dental training, which shall begin and end with the idea of making the most proficient dentist, is the highest and best form—is the ideal one. If we can put that ideal before the student, in all its bearings on the health of the entire body, and if he will do his work with that ideal in mind, he will necessarily have to take into account the fundamental medical science subjects in a different way from what he sometimes does. I admit that it is true that too many students take these medical science subjects simply because they are required, and only for the purpose of securing a passing grade, and when they *get* their grades, they do not necessarily make an effort to forget everything they have learned, but they do too frequently fail wofully to make any proper use of them. I had a student at one time write to me from Chicago, where he was attending the clinics at one of the summer schools during the interim between his junior and senior years, to the effect that he was making a great many amalgam and gold fillings in the clinic, and incidentally endeavoring to find out what bearing that long and tedious course in organic chemistry had on the practice of dentistry, especially in making amalgam and gold fillings. The students cannot see the relations of these studies, and so they lose their interest in them.

My own idea of the research man is a special type of man. I do not believe we can educate these men in our dental schools; I do not believe it is the thing we should turn our attention to, largely. If now and then we find a man with the spirit of research in him, and we can induce that man to take up the scientific training, all well and good. We have had some favorable experience in our school. We have been able to influence some of our men to prepare themselves for research work, but it has been a long and rather laborious process

for them. It would have been better for these men to have received their academic and scientific training first, and then to have taken the dental course; but of course they did not know what they would want to do when they elected dentistry. We could not interest them until they had gotten to the point where they could see the relation of science to the practice of dentistry. I have come to the conclusion that the better way to get our scientific research men is to find men already trained in science who can be induced to study dentistry. We have at the present time in our school such a man, and he is in his third dental year; we hope to make a practitioner of him first, and then a dental research man, and at the same time we are interested in having him receive all possible clinical experience along with his scientific training, so that he will see both sides of the work. I have a notion also that we shall hardly get this spirit of research into our student body unless we have a teaching faculty that has this spirit, and the opportunity is given the teaching faculty to carry out research and present their work to the class. In this way it is possible that the value of scientific work can be impressed on students. We should not expect to develop every student into a scientific man, but we may at least arouse that spirit more frequently if we have teachers who are doing this work who can make an appeal to their students from that standpoint. The man who goes to the laboratory and does work himself can present that work to his class more effectively, in my judgment, than the man who studies the phenomena from the textbook. I look forward to the time when we shall have teachers who can impart instruction in the fundamental sciences, and are of the highest type of technical experts. Such instructors would make thinkers as well as artisans of our students; such teachers will be so interested that they will handle this problem in the broadest way and yet because of their professional training and allegiance, they will instruct from the dental standpoint, rather than from the standpoint of medical science. We have tried, unsuccessfully, to get medical research men to investigate our dental problems, and excellent men as they are, they have tried to do something with our problems, but their work has not been of particular value to us, because they could not get our viewpoint. I believe, therefore, that the best way for us to solve our problems is to get at them ourselves, and from the dental standpoint, with men trained to investigate our problems from our viewpoint. It will of course take time to get men with the proper preparation to do this.

I do not say all this in criticism of Dr. Talbot's views in this connection, but I am thinking not so much of what is desirable as I believe we are all practically agreed as to this —but of how we can best attain our ideals under the conditions now obtaining. I believe the best way of reaching this ideal is not through a medical education, but through a combined scientific medical and dental training in the technical branches—applied science!

Dr. Kirk: I would like to call attention to this point; that the foundation principle of what we are now regarding as focal infections, which is occupying so much attention, and properly so, was wrought out and laid down and published as the result of the researches of Miller in that series of articles on "The Human Mouth as a Focus of Infection" before he had taken the medical degree. That was lost sight of and neglected until Sir William Hunter, a medical man, called attention to it from the clinical side. Medicine paid no attention to Miller's discoveries. There was a discovery initially worked out and the principles laid down not only as the result of clinical observations, but of scientific research. The discovery of the principles underlying the whole question of metastatic infection from the mouth, the whole catalog of mouth lesions, was a dental discovery, and was passed without notice because of that tendency on the part of the medical profession to ignore the work done by dentists. When Professor Choquet, one of the best histologists and histopathologists of France, published his work in this connection, Professor Cruet, who is a director of l'École Stomatologie de Paris, condemned the book, not because it lacked merit in itself, but because he thought it was impossible for a man without the medical degree to write anything worth thinking about. This same attitude of mind was exemplified some two thousand years ago in the instance of a certain Pharisee who asked if any good thing could come out of Nazareth. I have learned from experience that it is a good thing to keep your eye on the Nazareths, because many good things have actually come out of them. Ninety-nine per cent of the work in relation to mouth lesions has been done by dentists, and it has not been recognized by medicine because they assume dentists are lacking in what they call medical training. They are not lacking in the spirit of research; they have done research, and it has gone unrecognized by those who should recognize it for the simple reason that they did not believe any good thing could come out of the dental Nazareth. We are, I believe, entering a new era, where the common purposes and common ideals which should properly animate all specialists in the art and science of healing are wiping out these older and artificial barriers which have heretofore served to separate the dental and medical professions in their service to humanity.

Dr. Talbot (closing the discussion): I am very glad to hear the sentiments of the gentlemen who have spoken. I do not disagree with them all and I think you will see that I do not when I have finished. In fact I would take Dr. Hoff's remarks as my finishing discussion of the subject.

In the first part of his discussion Dr. Hoff asked why a man should take two years in a medical school. The reason for that is that the first two years in the medical school are given over wholly to laboratory work, microscopic work, and pathologic work. If the dental school will do that, if the students can take the first two years of that kind of work in a dental school, and the dental schools do that work and prepare the student to do research work just as well as it is done in the medical school, there is no difference—I do not care whether the work is done in a medical or dental school. I do not disagree with Dr. Hoff in that point; I agree with him.

In regard to Dr. Kirk's remarks, I can best illustrate what I wish to say by the following statement: I recently came across one of the best pathologists, one of the best histologists, and one of the best embryologists in this country, who is teaching in one of our dental school, and I asked him how he was getting along with his teaching. He said, "I am very much discouraged; I have just finished my midyear examinations and my students do not know a d——— thing about what I have been teaching." He is not a man who is given to swearing, but this thing was very strongly on his mind. He said the students did not understand, could not grasp the subject, and could not answer his questions, and the reason was because their minds were on the mechanics of the profession. I know that that is true; I know that the minds of the students in dental schools are on the mechanics of the profession, and they do not care about these subjects. Just as Dr. Hoff has said, they cannot see why they should study chemistry in order to be able to put in amalgam fillings. That is the point—we must separate the two and the student must get the scientific subjects first, and if he gets them in the dental school, well and good.

Dr. Kirk: One thing you have left out. You said that this man was one of the best pathologists, one of the best histologists, one of the best embryologists in the country, but was he one of the best teachers of these things in this country? If a lecturer has had that effect on a class, I suspect that he does not know how to teach.

Dr. Talbot: I will not attempt to answer the question as to this man's ability as a teacher. I simply mention this to make my point stronger. I met this man and had a conversation with him on the subject and he expressed himself about as I have stated it to you.

Dr. Kirk: When I meet a discouraged teacher who says that the students are not interested in his subject, or do not understand what he is trying to teach—when I find a complaint of that sort, I begin to wonder whether he knows how to *teach* the subject, which is another thing from *knowing* the subject.

Dr. Talbot: That is true in all departments, anatomy, chemistry, physiology, etc.

Dr. Kirk: I am only raising a question as to the credibility of the witness in the instance cited by Dr. Talhot.

Dr. Talbot: Dr. Smith brought out a splendid point when he mentioned the fact of Dr. Minot and others not being medically educated men. These men were educated, however; it does not make any difference whether it be in medicine or not. There is Pasteur, the greatest man the world has ever known in research work, who was really not a medical man. But just read the history of his life, and see what trials he suffered. In Paris he could not associate with medical men, and yet in spite of that he brought out so much with regard to diseases of the body that they had to recognize him. Every dean should have two or three copies of Pasteur's work in his school library, and make every student read that book through twice in the second or third year, and that will give the student some idea of what research work is and what pathology is.

Election of officers for the ensuing year, resulted as follows:

*President*—Dr. F. T. Breene, Iowa City, Iowa
*Vice-president*—Dr. J. H. Kennerly, St. Louis, Missouri
*Secretary-treasurer*—Dr. Edward C. Kirk, Philadelphia, Pennsylvania
*Executive Committee*—Dr. N. S. Hoff, chairman; Dr. G. S. Millberry and Dr. F. T. Breene, ex officio
*Educational Committee*—Dr. Alfred Owre, chairman; Dr. E. H. Smith, Dr. Edward C. Kirk, Dr. F. T. Breene, ex officio

The meeting adjourned subject to the call of the Executive Committee.

# SPECIAL MEETING HELD IN ALBANY, NEW YORK, APRIL 1, 1916

A special meeting of the Dental Faculties' Association of American Universities was called to order at 10 a.m., Saturday, April 1, by the president, Dr. Breene, in Albany, N. Y., for the purpose of conferring with the commissioner of education of the state of New York, Dr. J. H. Findley, and the assistant commissioner of education, Dr. A. S. Downing. Membership universities were represented as follows: Harvard, Dean E. H. Smith; Iowa, Dean F. T. Breene; Michigan, Dean N. S. Hoff; Minnesota, Dean Alfred Owre; Pennsylvania, Dean E. C. Kirk; Washington University, Dean J. H. Kennerly.

The secretary, Dr. Kirk, read the notice from the executive committee calling the meeting, and outlined the purpose of the meeting as follows: to confer, as the members had agreed was advisable, with the commissioner and the assistant commissioner of education of the state of New York in order that some understanding might be reached with regard to changes in the proposed new dental law for the state of New York, and if possible to have the change harmonize with the purposes of the Association. It was also desired to have the New York authorities become familiar with the objects and purposes of the Association.

Dr. Kirk then read the resolution passed at the Chicago meeting adopting the four years' course of dental study, stating that this resolution had been adopted by all the dental teaching bodies of the country with the exception of the National Association of Dental Faculties, and that practically the whole profession was in harmony with the resolution.

Dr. Downing outlined the position of the Educational Department of the state of New York in regard to medical and dental education as follows:

They had established a minimum requirement for the course of instruction for schools granted registration by the regents. The American Medical Association had adopted a course of 4600 hours with a minimum of 4200 hours. The regents believed this to be too great a number for the four years' curriculum; that it included certain subjects the licensee should know before studying medicine. The regents had established a minimum for the medical course of 3600 hours, and had determined that no medical school should be registered that did not have this full time devoted exclusively to medical instruction. In the registration blank there was a question to the schools asking the number of full time men and their salaries. With regard to salaries, they required that a school give the evidence of the fixed charge against the school so that a school might not be registered this year and the next year fall off because of lack of income. A school was required to have six full time men. The Board of Regents also required that six full time men be employed in teaching strictly in dental schools. Men were not allowed to teach the same subjects in both schools, for the reason that it was believed the medical man could not teach the dental student properly, that subjects should be taught from the standpoint of dentistry. The board required that a student be matriculated for three years in a dental school. Dr. Downing mentioned the situation at Harvard, stating that there, if a student took the medical course in the first year, which was the same as in the dental course, and perhaps after a second year in the medical course changed to the dental course, he could not be allowed to take the licensing examination, for the reason that he had not been registered for three years in the dental school.

Dr. Kirk pointed out that these difficulties applied chiefly to the three-year course, but that since we were approaching the four-year course, he believed the two first years of the course should be made closely analogous to the first two years in medicine. He thought these two years should be practically interchangeable.

Dr. Downing cited the case of the new dental department to be established in connection with Columbia, in which the entrance requirements would be two years of college work. The first two years in the dental school were to be identical with the medical, with the exception that certain elementary subjects were to be added to the dental course. This he said would necessitate a modification of the

two courses if that school were to be registered. He thought the regents would adopt very definitely the rule that only those schools would be registered which could show six full time teachers in dentistry. He suggested as the reason for this that he did not believe the man who was giving only a few hours a week to teaching and the balance to private practice, was able to do the best teaching; that the time not used in teaching would be to the greater advantage of the student if spent in the laboratory instead of in practice.

Dr. Owre suggested that the basis of the requirement for full time men might logically be the number of students.

Dr. Kirk suggested that it was a question of manning the laboratory all the time. He did not see any noteworthy difference between having four quarter time men in the laboratory and one man giving full time, as long as some competent instructor were there all the time.

Dr. Downing made the point that some full time service was necessary for the best development of the institution, because of undivided interest in the work. While a man might not be employed entirely in teaching, he should spend several hours a day in the study of his subject. He believed there were subjects in both medicine and dentistry that demanded a man's full time.

Dr. Kirk agreed with this in general, but thought it would have to be decided with reference to the character of the subject itself. For instance, a practitioner specializing in crown and bridge work could present his subject better because of his experience in practice.

Dr. Downing admitted this, and said that such a man might well be a part time teacher. He believed there were other subjects in the dental school to which the same argument might apply; that the board did not intend to specify which teachers should be full time men, but only that there should be six such men at a minimum salary.

Dr. Smith asked if a man teaching anatomy to medical classes, with two assistants, and also teaching anatomy to dental classes, would be considered a full time man in both the medical and the dental schools.

Dr. Downing replied that he would not be so considered.

Dr. Smith said that the Harvard Dental School was under the faculty of medicine, which includes both schools; that the Dental School was simply a department of the medical school.

Dr. Downing replied that since that statement was made, that was all there was to it. He further remarked that there comes a time in the teaching of anatomy when the dental student must devote his time to special anatomy, that of the head and of the nervous system, especially. This, he thought, would require a full time man; it could not be otherwise in the dental school. In the school of medicine there might be a specialist in dental anatomy. He should be reported as the full time man.

Dr. Kennerly cited the case of a professor of anatomy with a full time assistant teaching only anatomy to dental students, under the direction of the professor, and asked if this would meet the requirement.

Dr. Downing said he thought it would. He stated that the difficulty lay not with the university schools, but with the proprietary schools. The board required the six full time men of the proprietary schools in order to compel them to maintain the schools on a professional basis. Dr. Kirk remarked that the tendency in university schools was to make the first two years in certain branches interchangeable for medicine and dentistry, and that there should some time be legislation permitting this interchangeability. In view of this he believed the resolutions proposed in Chicago with regard to the status of undergraduate medical students

in dental schools should be modified before final passage to apply only to the present three years' course.

Dr. Downing suggested that the Association select from the freshman and sophomore years those subjects which are fundamental and enumerate them, so that any student presenting a certificate from an approved medical school that he had satisfactorily completed the freshman and sophomore years in the subjects named might be admitted to the junior year of an approved dental school, the faculty of such school reserving the right to examine such applicants in any of the subjects at its discretion. A student bringing a certificate that he has satisfactorily completed the medical course in the subjects named might be admitted to the sophomore year with the same proviso. Dr. Downing then read the proposed new dental law of the state of New York and called attention to the definition of the practice of dentistry.

Dr. Smith asked if the regents had established any minimum salary for the six full time men required in registered schools.

Dr. Downing replied that the minimum was four men at $1200 and two others at $1000.

Dr. Kirk, referring again to the resolution regarding undergraduates, said that with Columbia starting out with a curriculum of equal length for medical and dental students, he thought the time was coming when the dental man would be graduated with the medical degree or its equivalent, perhaps with a modification that would indicate the specialty. That is, he foresaw a change in the old M.D. degree; medicine would be compelled to stand on the facts and license men to do only the thing they were educated for.

Dr. Smith stated that they were working out a plan in the Harvard Medical School by which in the fourth year certain subjects might be made elective to the dental degree; and that by continuing the course one and one-half years longer the student could secure both the medical and the dental degree. That, he thought, brought the question whether the examining boards would recognize certain dental subjects as medical.

Dr. Downing said, "They could not fail to recognize that. The law requires that the student shall have completed four satisfactory courses of not less than seven months each, in four different calendar years, to obtain from the medical school the degree of M.D. If his school were registered by us, and the student presented the M.D. degree certifying that he matriculated a certain year and was in attendance four years, and if he were of good moral character, he must be admitted to the licensing examination. The only question was four satisfactory courses. When a medical school is registered, the board takes the catalog of that school and goes over the four years of the course, comparing it with the minimum requirement of 3600 hours in the regents' medical course. If that school shows 3600 hours in these subjects, very well; the board may also require some special subjects, such as ophthalmology, for practising a specialty. We are going to amend the requirement to include oral surgery. We are beginning to realize that the men who practice dentistry will be granted the D.D.S. degree; but an oral surgeon will have to go back and specialize in his field."

Dr. Kirk advocated a course in which the fundamental work would be the same, with a further elective year in which to develop a specialty, the degree to indicate the specialty.

Dr. Downing replied that a combined course would be better, with the first two years of the course identical. At the end of the second year a student might differentiate and take two years of medicine, with the M.D. degree, or two years in dentistry with the D.D.S. degree; or in six years he might take both degrees.

Dr. Downing, speaking of the Chicago resolution demanding 4800 hours, with a minimum of 4200, thought it too much for the dental course.

Dr. Owre explained that the course, for example, in Minnesota included 2640 laboratory hours without home assignment; the medical course of 3600 hours has less purely technical work, and more home study.

Dr. Downing said his point was that time is a largely neglected element in education. You cannot overcrowd the human mind. The student should be given time between doses, so to speak, to reflect upon the thing he has been learning. The medical course is so crowded today, the student is so rushed from one thing to another, that he comes out of the medical school without knowing medicine, but with a mass of information he has not had time to correlate and adjust. He believed the dental school was the same way. The outlined course specified a minimum of 4200 hours. The regents want to know just what subjects are covered in these hours, and the number of hours in each subject. Dr. Downing read a syllabus of the course of study for dentistry as outlined by the Board of Regents, with the subjects to be covered and the hours devoted to the subjects. He stated that the new law would provide for examination at the end of the second year in the fundamental branches.

Dr. Owre presented the following resolution:

*Resolved,* That we encourage and endorse the action of the various authorized state bodies in their efforts toward unification of state dental laws, especially in regard to the preliminary requirement of graduation from a four year accredited high school course and thereafter from a four years' course of professional dental training.

Dr. Kennerly moved, and Dr. Smith seconded, the adoption of this resolution. Motion carried.

Dr. Owre also presented the following resolution:

*Resolved,* That we call attention to the necessity for satisfactory official proof of all preliminary educational credentials.

Dr. Kennerly moved, and Dr. Smith seconded, the adoption of the resolution. Motion carried.

Dr. Owre then offered the following resolution:

*Resolved further,* That we send to all interested bodies, governors, and state educational officials copies of the above resolutions, also the following resolution regarding the four-year course as formulated in the conference at Chicago in June, 1915, and ratified by the American Institute of Dental Teachers and this Association, in January, 1916, to wit:

*"Resolved,* That it is the sense of this meeting that we approve of the plan of four-year course of not less than 4800 working hours the curriculum to consist of not less than 4200 hours devoted to such subjects as are deemed essential to the technical and scientific education of the dental practitioner, with the understanding that ancillary subjects shall be elective and shall not consume more than 600 hours of the course, with the understanding that the work elective is to be understood as a function of the administration of the school, and not of the student body."

Motion was made and carried that the above resolution be adopted.

The resolution with regard to advanced standing to undergraduate medical students was taken up for consideration, and Dr. Downing offered the following suggested resolution:

*Resolved,* That any student presenting from an approved medical school a certificate that he has satisfactorily completed the first year in anatomy, biology, chemistry, and prosthetic dentistry, may be admitted to the second or sophomore year of the four years' course in dentistry, and any student presenting a certificate from an approved medical school that he has satisfactorily completed the above-named subjects of the first year and the course of anatomy, histology, embryology, dental anatomy, organic chemistry, operative dentistry, physiology and physiological chemistry, bacteriology, and prosthetic technique of the sophomore year may be admitted to advanced standing as a member of the junior year. But such admission to advanced standing in either case shall be subject to the applicant's passing the examination in any subjects which the faculty of the dental school may require; and with the further

proviso that the applicant in either case must before graduation have made up any deficiencies in any of the above subjects if he shall be admitted to advanced standing and conditioned in these subjects.

Dr. Smith moved, Dr. Hoff seconded, that this resolution be sent to all the members of this Association for consideration and amendment at the next meeting of the Association.

Motion carried.

Dr. Downing asked that the universities furnish to the Board of Education of New York an outline of the four-year course to be followed by each school as an aid to the commissioner of education in adopting a uniform four-year course.

Dr. Downing, referring to the proposed four-year course suggested by Dr. Owre in 1914, said he did not think it was the function of the professional school to take into it a part of the academic training. The school should say that the student deficient in these subjects would be required to take a course in the department of liberal arts in addition to the professional course. He said the four-year course in the New York schools would not contain anything of this kind; that the time would be given strictly to the training in the science and the art of dentistry, and if the applicants did not have the requirements necessary they would have to go out and prepare themselves.

Dr. Kennerly asked Dr. Downing if, after he received the proposed curricula of the different schools, he would submit to the Association a synopsis of what he would consider to be the proper course covered in the four years' course.

Dr. Downing replied that he would be glad to do so with the understanding that it was from one who is administering the law, and studying dental education theoretically.

Dr. Downing pointed out that since academic subjects should be taught in the departments of liberal arts, every dental school should be part of a university. He suggested that the Association get up a pamphlet to send to schools preparing students for professions, telling them what they should teach by way of preparation for dentistry.

The meeting adjourned.

# NINTH ANNUAL MEETING

The ninth annual meeting of the Dental Faculties' Association of American Universities was called to order January 26, 1917, by the president, Dr. F. T. Breene, in Hotel Adelphia, Philadelphia, Pennsylvania.

Membership universities were represented as follows: California, Dean G. S. Millberry; Harvard, Dean Eugene H. Smith; Iowa, Dean F. T. Breene; Michigan, Dean M. L. Ward; Minnesota, Dean Alfred Owre; Pennsylvania, Dean E. C. Kirk; Washington University, Dean J. A. Kennerly.

Motion was made and carried to dispense with the reading of the minutes, for the reason that they had been published in full in the printed transactions of the Association and distributed to the members.

The next order of business was the reading of the address by the president. Dr. Breene called to the chair Dr. J. H. Kennerly, vice-president, while he read his annual address, as follows:

In pursuance of my duties as presiding officer of this honorable body, I wish to call your attention to some of the recommendations of former presiding officers, as well as to a few suggestions which may not be new, but which I believe are pertinent to the interests of dental education.

The adjustment of the proposed four-year curriculum has brought us to the point of realization where we wonder how it was possible to crowd the present three-year course of study into the time allotted. It would seem that the time occupied in pursuing academic subjects now a content of the four-year curriculum is needed for dental instruction. To facilitate the furtherance of dental teaching, we would suggest that as soon as practicable a predental course, of from one to two years in an approved college of arts and sciences, be made a requisite for admission to university dental schools.

The Educational Council of America has presented a schedule of subject hours f r class A dental colleges. The work accomplished by the Educational Council has been for the betterment of dental educational conditions. If fixed headquarters and funds for the employment of a permanent secretary were provided, this council could produce better results; they have been hampered by the lack of funds and sufficient time to devote to careful investigation of colleges. It must be recognized that it is the method of instruction and the pedagogic application of methods that produce subject results and not scheduled hours. In other words, an analysis of the interior workings of a college, a survey of each course, methods of instruction, and results obtained, should be the basis for college classification.

The result of annual and cumulative tabulation of state examining board reports is not a definite means of judging the educational efficiency of dental colleges. The element of chance should be eliminated in college standardization. To use the hazards with which a graduate comes into contact—from graduation to tabulation—as da'a for the standardization of professional colleges is unsafe and absurd.

Not until dental colleges are standardized and classified by some authorized agency that will eliminate from its conclusions all of the elements of bias and prejudice—not until then will a satisfactory solution of this vital problem be reached.

The suggestion of Dean Sharp in his address as president of this Association in 1912 would seem a most satisfactory solution of the problem of standardization of dental colleges: "Equitable standardization of dental colleges can be best obtained by co-operation with the Bureau of Education at Washington, and by furthering an investigation by the Carnegie Foundation."

Your attention is called to the great future of dentistry in public health service as a means of conserving the health of the masses by public instruction in preventive dentistry. The appalling percentage of defective teeth and deformities reported as the result of the examination of the mouths of children in public schools, employees of industrial plants, institutional inmates, and army recruiting stations, indicates that the education of both dentist and layman has been neglected from the viewpoint of preventive dentistry. The faculty of the College of Dentistry of the State University of Iowa has petitioned the Iowa State Board of Education to establish a chair of preventive dentistry. It is believed that the request will be granted. The scope of the work as planned for this department is in part as follows: instruction in oral hygiene and prophylaxis to dental students and hygienists; co-operation with the university extension department in organizing municipal, industrial, and institutional dental dispensaries, and to outlining and establishing methods of teaching oral hygiene in the public schools of the state.

Several states have legalized the dental hygienist, and similar action is contemplated in many other states. We believe that the dental hygienist has come to stay. It would seem within the province of this Association to decide as to the advisability of instituting a course in university dental colleges for the educaton of dental hygienists.

If, in your opinion, a course of this character is desirable, a definite program should be outlined as to the requisite preliminary education of applicants, character and extent of the curriculum, length of session to he required, and form of certificate to be conferred when the course is satisfactorily completed.

Although Miller presented in 1890 records of the relation of oral diseases to systemic conditions, the truth of his statements has but recently been recognized. The undergraduate of today is taught modern theories and methods of practice. But what of the graduate of the past? This presents an educational problem that should be considered.

The following plans for graduate work have been suggested: (1) that undergraduate colleges divide their energies and give postgraduate instruction; (2) that a graduate college should be a separate department with a separate faculty, but be affiliated with an undergraduate college; (3) that the graduate college should be a separate institution without undergraduate affiliations.

If the undergraduate colleges are to present postgraduate courses of instruction, it would seem advisable that definite standards should be arranged whereby a graduate course would be considered from the educational conception of the term, as a dignified attainment in higher education.

On motion, the address was received and opened to discussion by the Association.

DISCUSSION

Dr. Kirk said that the question of postgraduate instruction was a very important one to the Association, not only as a means for providing further instruction or education for the man willing and capable of taking advanced instruction, but that the colleges of the Association should develop a systematic scheme for instruction—an advanced department of instruction to which the graduate or the man who is qualified to practice dentistry would normally advance. The whole trend of dentistry was bringing it into closer relationship with the system already standardized in Europe in medicine and dentistry, where the student qualifies for medicine after completing his course of instruction, and having passed an examination, is licensed to practice medicine or surgery; then, if he continues his studies for a given period in addition to his work in a hospital, he receives his degree of doctor of medicine, after giving evidence of his higher training. In Germany we find two grades of practitioners, the Zahntechniker, the man who is not permitted to operate in the mouth, and we have the Zahnärzte, who are the qualified licensed practitioners. He thought that in the process of evolution we were being forced into the necessity of considering some such division in dentistry as exists in Germany today. We have no provision for the man who is characterized as the mechanical dentist, who is practicing dentistry as an art and not as a science, as distinguished from the man who is practicing from the scientific, biologic aspect, and it seemed that we must make some provision for instruction leading to a higher degree for men who wish to go higher. In order to obtain the higher qualification it should be required that the student shall earn a certain definite number of credits, but not necessarily in a certain specified time.

With regard to the dental hygienist, that was something that must come; there are and will be objections, of course, but the dental hygienist is inevitable, and we must establish proper standards and provide for the systematic instruction of dental hygienists.

Finally he asked the Association to consider the question of the Preparedness League of American Dentists. He had been in communication with the men who have had in hand the preparation and instruction of a course for the training of men in dental and oral war surgery; and he thought that we should endeavor to provide means of education for graduates in dentistry so as to qualify them to do efficient work in that field. He believed that this should be done under the supervision and with the aid of the national government, and was of the opinion that such co-operation could be obtained.

Dr. Smith did not believe that the superstructure which Dr. Kirk outlined could properly be built upon a strictly dental foundation. He did not believe it was possible to develop the men Dr. Kirk expected from the general product of men entering the dental schools. He did not think we would ever win the respect and admiration of the medical and surgical men until we placed with them men who have a foundation equal to their own. Some years ago he had suggested to this body that we co-operate with the medical schools in a scheme that would educate the specialist in dentistry as other specialists in medicine are educated, and equally well. His plan was for the dental student to take two years' college training, three years in medicine, and in the fourth year elect dental studies, being graduated with the medical degree, but with dentistry as his specialty. With that sort of foundation he thought we could build any kind of superstructure desired.

Dr. Millberry thought there were two points in the president's address that might be ignored in considering the problems of the Association, namely, the Educational Council and the state board tabulation reports, as they had not proved themselves to be of any value. With regard to the predental course, he said three plans had been suggested to the board of regents of the University of California, viz.—first, a course equivalent to that set up for matriculation in medicine; second, two years' predental work as indorsed by the medical school, plus three years of dental training; and third, the adoption of a four-year course to be submitted to the various members of this Association. Dr. Millberry was glad to note that the University of Iowa had recommended a professorship in preventive dentistry, and thought that might create a popular demand for the dental hygienist. The Board of Regents of the University of California have approved of a course of one year of instruction in this work, based on high school graduation, to enable those taking the course to render hygienic service to the dentist. He was impressed with Dr. Kirk's scheme for postgraduate instruction in the various departments of the schools, and wondered if this Association would be disposed to go on record as willing to grant a special degree after the completion of such a course of postgraduate instruction. He was sure that California would be willing to do so.

Dr. Owre thought that one of the most important points in the address was the reference to steps that must be taken to prepare for college work—that is, predental work. He had in mind to recommend to this Association some definite action that would bind the Association to the establishment of one year of academic preparation not later than 1921. Dr. Owre agreed with the idea of postgraduate instruction, but thought it best to establish first one year of academic work as a preliminary requirement.

With regard to the dental hygienist, he thought all agreed that some provision would have to be made for such a course of instruction. In the medical world, the professional nurse was required to take a three-year course and a high school course was required as preparation. The dental nurse, he thought, should have a course of training and a preliminary educational qualification somewhat similar to that of the medical nurse.

As to the item of membership, as mentioned by the president, he considered it desirable to increase the membership of the Association in an endeavor to make a more inclusive organization that would carry more weight and authority when suggestions and recommendations were made to the various institutions of the country. He said the present organization did not fill this need, and thought that possibly some such result could be obtained by the affiliation of an association such as this with the National Dental Association, which seemed to be the most representative body.

Dr. Ward said, with regard to Dr. Owre's last suggestion, that he hoped the time would never come when the National Dental Association would have to do with establishing the standards for dental schools. He said that his school had objected to inspection by the Educational Council, and would continue to do so until the movement was on a different footing. They did not object in the least to an impartial inspection, but he did not think it was done in the proper way at present. The one point that impressed him in the president's address was the necessity for better preparation along medical lines. With regard to the postgraduate degree, he said that his institution at present granted a degree for postgraduate work of a certain type continued for a number of years; this was confined to research work, chiefly. It was a question whether this practice should be continued or not. With regard to arrangements for meeting the

demands of the man who wanted to pursue further work, they had for some time extended the courtesies of the clinic and other facilities to Michigan men who wished to do further work, but the Board of Regents had not allowed the dental department to inaugurate a regular postgraduate course of instruction.

Dr. Smith said that with regard to dental hygienists, in Massachusetts the legislature had provided for these hygienists, and that the Forsyth Institution in Boston was conducting a course of instruction for the dental hygienist. He thought all that was necessary was to have properly trained women for this work. He said that Dr. Owre had spoken of one-year academic training, and referred to the handy man in medicine; he thought that we were producing the same handy man in dentistry with a little more collegiate training, and that we should therefore start and give the men more medicine.

Dr. Kirk said that, properly to understand the subjects given in the curriculum, the student should have a thoroughly good academic training before he starts at all, and that was why he favored the advance of the predental standards.

Dr. Millberry did not think it wise for the Association to obligate itself to do things that the universities represented would not accept. It seemed best that these objects should be set as the ideal toward which the different institutions might work.

Dr. Owre said that his thought was to present this in the way of a suggestion to the governing bodies of the institutions represented in the Association, with the object of having it adopted as binding in 1921.

Dr. Kirk said that Dr. Smith's idea was to matriculate the dental student as a medical man and give him two or three years in medicine, and then let him taper off with dentistry as an elective, but that he (Dr. Kirk) was opposed to beginning the making of a dentist by first making a medical man. With reference to the development of medical training on top of dental education, he was in accord with that for the group of men who were going to do that kind of work. If the schools were teaching the fundamental medical sciences as they should, the men were as well taught as in the medical school, and if we were not doing that we were not doing our duty.

Dr. Breene said that what he had in mind with reference to the suggestions made was a resolution empowering the educational committee to formulate a curriculum for postgraduate work, and to outline some definite plan for the instruction of dental hygienists, and also a plan for the one-year academic work as a prerequisite for the dental course.

Dr. Owre moved that the members of the Association recommend to their governing bodies the requirement of one year of prescribed academic work as a preliminary to the dental course, to take effect in 1920; also that they be asked to establish a course of postgraduate instruction, and a course of instruction for dental hygienists.

Motion carried.

The next order of business was the report of the secretary-treasurer.

The secretary reported several matters of routine business; presented a request from a university school for membership; and submitted a financial report.

The latter was referred to the executive committee and the report was accepted.

The question of increase of the membership of the Association was then discussed by Drs. Kennerly, Smith, Owre, and Kirk, after which Dr. Owre made the following motion:

Dr. Owre: I move that the secretary be instructed to write to these schools—University of Ohio, Dental Department; University of Illinois, Dental Department; and Northwestern

University, Dental School—calling their attention to the desirability of becoming members of the Dental Faculties' Association of American Universities.

Motion carried.

The next order of business was the report of the educational committee, Dr. Owre, chairman, as follows:

Owing to the fact that the past year has been largely one of crystallization, there is little for this committee to report save that the published programs of the various dental schools conform in the main to the Chicago resolution of 1915.

The progress of dentistry makes imperative a second forward step in dental education. The public, the medical profession, and the dental profession itself are demanding that the dentist be better and better quaified for his important task. We should at once refer to our faculties and governing bodies the question of inaugurating a predental year, to go into effect not later than 1921. With this end in view, I would ask that each college submit to the chairman of this committee suggestions for the curriculum to be adopted for the preparatory year, as well as for the four years following.

ALFRED OWRE, *Chairman,*
E. H. SMITH,
E. C. KIRK,
F. T. BREENE,
*Committee.*

The report was accepted.

Dr. Kirk, as chairman of a special committee to report on the status of the two Japanese schools, reported that he had received their prospectuses, outlining the courses, and had made inquiry in various directions with regard to the two schools, and as the result thereof recommended that graduates of the two Japanese schools be accepted in schools of the Dental Faculties' Association on the same basis as those from any other school outside of the Association.

The report was accepted.

Motion carried.

Election of officers resulted as follows:

*President*—Dr. F. T. Breene, Iowa City, Iowa.
*Vice-president*—Dr. J. H. Kennerly, St. Louis, Mo.
*Secretary-treasurer*—Dr. Edward C. Kirk, Philadelphia, Pa.
*Executive Committee*—Dr. M. L. Ward, chairman, Dr. G. S. Millberry, and Dr. F. T. Breene, ex officio
*Educational Committee*—Dr. Alfred Owre, chairman, Dr. E. H. Smith, Dr. E. C. Kirk, and Dr. F. T. Breene, ex officio

The meeting adjourned subject to the call of the executive committee.

# TENTH ANNUAL MEETING

The tenth annual meeting of the Dental Faculties' Association of American Universities was called to order Wednesday morning, January 30, 1918, at ten o'clock, by the president, Dr. Breene, at the Hotel Schenley, Pittsburgh, Pennsylvania.

Membership colleges were represented as follows: California, Dr. E. H. Mauk; Harvard, Dean Eugene H. Smith; Iowa, Dean F. T. Breene; Illinois, (application for membership to be presented), Dean F. B. Moorehead; Michigan, Dean M. L. Ward; Minnesota, Dean Alfred Owre; Ohio (application for membership to be presented), Dean H. M. Seamans; Pennsylvania, Dean Charles R. Turner; Washington University, Dean J. H. Kennerly.

Visitors: Dean Rice, Professor Bates, Tufts College; Major Arnold and Major Waite, Medical Corps, United States Army; Dr. Proctor, Harvard; Dr. Gillette, Columbia; Dr. Volland, Iowa; Dr. Lyons, Dr. Hoff, Michigan.

Motion was made and carried to dispense with the reading of the minutes of the last session, as they had been published in the printed transactions of the Association and distributed to the members.

The next order of business was the reading of the president's annual address. Dr. Breene had no formal address to present, but called attention to a few corrections in the printed record.

In the absence of Dr. Kirk, the secretary-treasurer, Dr. Hoff, was elected secretary pro tem. The report of the secretary-treasurer for 1918 followed.

The secretary reported that, acting under the instructions embodied in the resolution passed at the previous meeting, he had written to the deans of the dental schools at Ohio, Illinois, and Northwestern University, calling their attention to the desirability of becoming members of the Dental Faculties' Association of American Universities. Following this, application for membership was made by the dental school of the University of Ohio through the secretary's office and referred to the executive committee through the chairman, Dr. Ward.

The secretary also requested action on the application for membership of the dental school of the University of Buffalo; suggested the desirability of attempting to secure, within reasonable limits, uniformity in the curricula of the schools giving the four-year course; called attention to the timeliness of a discussion of a proposed curriculum for dental hygienists; commented on the importance of dental service in the Dental Surgeons' Corps of the United States Army and suggested that members of the Association support a bill then pending in Congress, the purpose of which was to accord to the Dental Surgeons' Corps in the navy analogous recognition to that already granted the army dental surgeons.

The treasurer's report was submitted. Dr. Kirk requested an auditing of the accounts, inasmuch as, owing to his resignation from the deanship of the dental school of the University of Pennsylvania to enter a different phase of dental work, he must tender his resignation as secretary-treasurer.

Motion was carried that the report be accepted and certain features be taken up at a later session.

The president presented applications for membership from the dental colleges of Illinois and Ohio, stating that these applications had been approved by the executive committee. Both schools were voted into membership. Dr. Moorehead and Dr. Seamans were presented to the Association as representing the two schools. It was then voted that visitors be given the privilege of the floor.

The next order of business was the report of the educational committee by Dr. Owre as follows:

*Mr. Chairman:* The educational committee of the Association begs to submit the following report:

Recognizing the increasingly close relationship between dentistry and medicine—a kinship now acknowledged by all progressive members of the professions—your committee has endeavored to draft a course in dentistry which is another step toward the inevitable fusion of the dental and the medical courses. This return to the ancient status of dentistry as essentially a specialty in medicine is bound to occur before many years.

This outline includes a course in physics, which should be non-mathematical and elementary in its character. It should include the mechanics of solids, treated from an historical and experimental standpoint; also the mechanics of liquids, gases, and wave motion, treated from an experimental standpoint. This would take two recitation hours and two laboratory hours a week for one year. In this, as in other requirements, recognition has been given the fact that the dentist's turn of mind is usually concrete rather than abstract; that he sometimes profits more through studying the working out of principles than by moiling over the abstract phases of a subject. Mathematics is a case in point. I believe it should always be offered as an elective rather than as a requirement.

The other electives afford an opportunity for the student not only to find himself more perfectly, but also actually to specialize in mechanical work. For instance, a general course in shop practice, foundry, forge, and machine work is certainly of great value to the future dentist.

A course in economics is of decided value to a man who is to function in such close contact with the community. It should deal with the principles that underlie the present industrial order and the chief economic problems of today.

There is an approximate increase of 900 hours in the whole curriculum, rather evenly distributed throughout:

| Subject | Hours |
|---|---|
| Organic Chemistry | 96 |
| Anatomy, Gross | 32 |
| Anatomy, Histology, and Embryology | 64 |
| Bacteriology | 32 |
| Clinical Practice | 96 |
| Pathology | 96 |
| Physiology and Physiological Chemistry | 64 |
| Pharmacology and Therapeutics | 16 |
| Oral Hygiene | 32 |
| Oral Surgery | 32 |
| Physics | 128 |
| Elective: Mathematics, Economics, History, Language, or Shop Practice | 192 |
| | 880 |

The advantages to a dental student of the remaining courses here proposed I had the pleasure of presenting last year in a paper read before the American Institute of Dental Teachers on "The Teaching of the Ancillary and So-Called Medical Subjects in the Four-Year Dental Course." As all of us were present at that reading, I shall not weary you with a repetition. I may state, however, that three years' observation of the four-year course in operation at Minnesota has served to strengthen, if possible, my conviction that it is our paramount duty as educators to give the dental student the broader education which will fit him to hold the important post the future offers him.

Recognizing this fully, your committee, in order to provide for those who now elect to fit themselves for this broader and higher service, has also outlined a recommended five-year course of study to be found in Program No. 2. The advantage of this lies in the grouping of the subjects, bringing more of the non-technical courses into the first two years and making it possible for them to procure this education in other units besides the dental school. There is an increase of about 700 hours over the present four-year course in this scheme, as follows:

| Subject | Hours |
|---|---|
| Anatomy | 48 |
| Organic Chemistry | 96 |
| English | 96 |
| Economics | 96 |
| Elective | 96 to 160 |
| Physics | 128 |
| Oral Hygiene | 32 |
| Oral Surgery | 32 |
| | 688 |

Respectfully submitted,

E. H. Smith
E. C. Kirk
F. T. Breene, ex officio
Alfred Owre, *Chairman*
*Educational Committee*

## PROPOSED FIVE-YEAR COURSE, NUMBER 1

| Predental Year | First Semester | | Second Semester | |
|---|---|---|---|---|
| | Credits | Hours | Credits | Hours |
| Animal Biology | 3 | 96 | 3 | 96 |
| Chemistry | 5 | 160 | 5 | 160 |
| Drawing | 2 | 96 | 2 | 96 |
| Elective: One of the following subjects: Mathematics, Economics, History, Language, or Shop Practice | 2 to 5 | 48 to 96 | 2 to 5 | 48 to 96 |
| English, Rhetoric and Public Speaking | 3 | 48 | 3 | 48 |
| | 15 to 18 | 448 to 496 | 15 to 18 | 448 to 496 |
| **Freshman Year** | | | | |
| Anatomy, Gross | 2 | 64 | 2 | 64 |
| Anatomy, Dental | 3 | 112 | 3 | 112 |
| Chemistry, Organic | 3 | 96 | 3 | 96 |
| Prosthetic Lectures and Recitations | 1 | 16 | 1 | 16 |
| Prosthetic Technique | 3 | 144 | 3 | 144 |
| Physics | 3 | 64 | 3 | 64 |
| | 15 | 496 | 15 | 496 |
| **Sophomore Year** | | | | |
| Anatomy, Gross | 6 | 192 | | |
| Anatomy, Histology, and Embryology | 3 | 96 | 3 | 96 |
| Bacteriology, General and Special | | | 5 | 144 |
| Dental Metallurgy, Lectures and Recitations | 1 | 16 | | |
| Operative Dentistry, Lectures and Recitations | | | 1 | 16 |
| Operative Dentistry, Technique | | | 3 | 144 |
| Orthodontia Technique | 2 | 96 | | |
| Physiological Chemistry | 3 | 96 | | |
| Physiology | | | 5 | 160 |
| Prosthetic Technique | 2 | 96 | | |
| | 17 | 592 | 17 | 592 |
| Clinical Practice: Crown and Bridge Work | | | 3 | 144 |
| Clinical Practice: Operative Dentistry | 2 | 96 | 3 | 144 |
| Clinical Practice: Oral Hygiene | 2 | 96 | 2 | 96 |
| Clinical Practice: Prosthetic Dentistry | 2 | 96 | 2 | 96 |
| Crown and Bridge, Lectures and Recitations | 1 | 16 | 1 | 16 |
| Crown and Bridge Technique | 3 | 144 | | |
| Operative Dentistry, Lectures and Recitations | 2 | 32 | | |
| Oral Hygiene, Lectures and Recitations | 1 | 16 | 1 | 16 |
| Pathology, General | 4 | 96 | | |
| Pathology, Special | | | 5 | 112 |
| Pharmacology, General | | | 2 | 32 |
| Prosthetic Dentistry, Lectures and Recitations | 2 | 32 | | |
| | 19 | 624 | 19 | 656 |
| **Senior Year** | | | | |
| Clinical Practice: Crown and Bridge Work | 3 | 144 | 3 | 144 |
| Clinical Practice: Operative Dentistry | 4 | 192 | 4 | 192 |
| Clinical Practice: Oral Surgery | 2 | 96 | 2 | 96 |
| Clinical Practice: Orthodontia | 2 | 96 | 1 | 48 |
| Clinical Practice: Prosthetic Dentistry | 1 | 48 | 2 | 96 |
| Crown and Bridge, Lectures and Recitations | 1 | 16 | | |
| Operative Dentistry, Lectures and Recitations | | | 1 | 16 |
| Oral Surgery, Lectures and Recitations | 2 | 32 | 2 | 32 |
| Orthodontia, Lectures and Recitations | 1 | 16 | 1 | 16 |
| Pathology, Special | 1 | 16 | 1 | 16 |
| Pharmacology and Therapeutics | 2 | 32 | | |
| Theory and Practice of Dentistry and Conference Course in Applied Economics, Jurisprudence, Psychology, Ethics, and Art | | | 2 | 32 |
| | 19 | 688 | 19 | 688 |

Note.– One credit hour may be either one recitation hour through one semester, two laboratory hours with outside work, or three laboratory hours without outside work. Issued January, 1918.

RECOMMENDED FIVE-YEAR COURSE, NUMBER 2

| First Year | First Semester | | Second Semester | |
|---|---|---|---|---|
| | Credits | Hours | Credits | Hours |
| Chemistry, Advanced General and Qualitative | 3 | 96 | 3 | 96 |
| Rhetoric | 3 | 48 | 3 | 48 |
| Technical Drawing | 2 | 96 | 2 | 96 |
| Zoology | 3 | 96 | 3 | 96 |
| Language, History, or Mathematics | 3 to 5 | 48 to 80 | 3 to 5 | 48 to 80 |
| | 14 to 16 | 384 to 416 | 14 to 16 | 384 to 416 |
| Second Year | | | | |
| Anatomy, Gross | 6 | 208 | 4 | 128 |
| Economics, Elementary Principles | 3 | 48 | 3 | 48 |
| English, General Survey | 3 | 48 | 3 | 48 |
| Organic Chemistry | 3 | 96 | 3 | 96 |
| Physics (without mathematics as prerequisite) | 3 | 64 | 3 | 64 |
| | 18 | 464 | 16 | 384 |
| Third Year | | | | |
| Anatomy, Histology, and Embryology | 4 | 128 | | |
| Anatomy, Oral | 6 | 192 | | |
| Operative Dentistry, Lectures | | | 1 | 16 |
| Operative Dentistry, Technique | | | 3 | 144 |
| Physiological Chemistry | | | 3 | 96 |
| Physiology | | | 4 | 96 |
| Prosthetic Lectures | 1 | 16 | 1 | 16 |
| Prosthetic Technique | 6 | 288 | 5 | 240 |
| | 17 | 624 | 17 | 608 |
| Fourth Year | | | | |
| Bacteriology, General and Special | 4 | 96 | | |
| Clinical Practice | 4 | 192 | 10 | 480 |
| Crown and Bridge, Lectures and Technique | 4 | 160 | | |
| Dental Metallurgy | 1 | 16 | | |
| Operative Dentistry, Lectures and Recitations | 1 | 16 | 1 | 16 |
| Oral Hygiene | 1 | 16 | 1 | 16 |
| Orthodontia Technique | 2 | 96 | | |
| Pathology, General and Special | | | 4 | 96 |
| Pharmacology | | | 3 | 48 |
| Prosthetic Dentistry, Lectures and Recitations | 2 | 32 | | |
| | 19 | 624 | 19 | 656 |
| Fifth Year | | | | |
| Clinical Practice | 12 | 576 | 12 | 576 |
| Crown and Bridge Work, Lectures and Recitations | 1 | 16 | 1 | 16 |
| Operative Dentistry, Lectures and Recitations | | | 1 | 16 |
| Oral Surgery, Clinical Pathology, and Radiography, Lectures and Recitations | 2 | 32 | 2 | 32 |
| Orthodontia, Lectures and Recitations | 1 | 16 | 1 | 16 |
| Pathology and Therapeutics | 3 | 48 | | |
| Theory and Practice of Dentistry and Conference Course in Applied Economics, Jurisprudence, Psychology, Ethics, Art, and Public Hygiene | | | 2 | 32 |
| | 19 | 688 | 19 | 688 |

Note.—One credit hour may be either one recitation hour through one semester, two laboratory hours with outside work, or three laboratory hours without outside work.

A discussion of this report followed. Professor Bates, of Tufts College, said he had long been impressed with the need of higher education in dentistry and had been urging it for twenty-five years. He had seen dental education constantly growing; this concrete statement of the needs and a plan to meet these needs seemed to him a move in the right direction. He had seen the effect of

broader education upon the medical student during its advancement to the present standard of two years' premedical training and felt the results were all that could be expected. The opinion heretofore had been that the dental student was not quite up to the medical student in mental capacity, but he believed that to be a fallacy; that the dental student should be treated as being on a par with the medical student in mental make-up. The preliminary education should be formulated upon that basis. Professor Bates approved of what Dr. Owre had said with regard to the influence of the professor on the student and thought the influence of the teacher in molding the lives of the young men was an ethical responsibility that should not be overlooked.

Dr. Smith was in accord with the ideas expressed by Dr. Owre but did not think they went far enough. Speaking of the fusion of the medical and dental courses, he was decidedly in favor of that and felt that if dentistry was to be a specialty of medicine it should begin at the foundation and give the same training as medical students, namely, two years of college education. His plan was that men entering the medical school should be allowed the privilege at the beginning of the fourth year of electing the dental course, and at the end of five years obtain the two degrees, medicine and dentistry, or dentistry as a specialty of medicine. He did not think this plan would tend to narrow the medical profession; he thought it was to be commended in that it was a step toward conservation of energy and the number of teachers necessary.

Dr. Owre suggested that his proposed schedule No. 2 would meet all the requirements of Dr. Smith's plan.

Major Waite, United States Army, said that from many years' experience in teaching in professional schools he was entirely convinced that the sort of teaching done in high schools does not fit a man to take up immediately professional study; that there must intervene a period of preparatory work between the high school course and the beginning of professional studies; that this intervening period of preliminary work was not primarily to give a man information or knowledge so much as to teach him how to study. From the standpoint of teaching biology, he did not think it made a great deal of difference what phase of biology was taught, the primary object being to teach the man how to study, how to analyze, how to see things. The medical schools had tried the plan of one year premedical training with the result that at the present time two years of premedical training were required and had proved satisfactory. He agreed with Dr. Smith that the predental and premedical training should be the same and that a man should not be compelled to decide whether he should take the medical or the dental degree before his preliminary training began.

Major Arnold, United States Army, thought there was no question as to the desire for progress along the line of dental education, but the question was how fast can we go? He was an outsider in the matter of dental educational problems, but he was impressed with the fact that two earnest gentlemen (Dr. Owre and Dr. Smith), while seemingly differing in some of their views, were of very nearly the same ideas and were entirely in accord as to the desirability of progress, and the only question was how far they could go at the present moment. He said the medical profession had gone through the same process and he realized now that if the medical profession had attempted to make the advancement to the requirement of two years' college training at one step, it would have created chaos. The unanimous desire of this association of dental educators was evidently for something better than was being done at the present time but the next step must be firm and effective. Dr. Owre evidently felt he had a plan that could be adopted by all schools as a minimum, while Dr. Smith seemed inclined to "hitch his

chariot to a star" and did not seem to care so much whether he had only one student to take that course. There was no question but that the sooner dentistry came to the point where it could not be said that the preparation of the dental student was inferior to that of the medical student, the sooner the students and the profession would receive the recognition they desire and which the medical profession would be glad to give; but he thought that the advance to this point would have to be gradual rather than at one jump. He did not agree with Dr. Smith in his idea that at the present time we should carry together instruction of medical and dental students through three years and then begin to differentiate, as medical education is carried on today, for the reason that medical education today, he thought, was wrong. One of the good results he thought would come out of the present war was that the medical profession would be forced to standardize instruction in medical schools. It was very desirable, he thought, to build up professional education on broad lines. There was no question but that dental men need to know more that could be learned in medical schools; he was certain that medical men needed to know more about things that should be learned in dental schools. It seemed to him that, that was the line on which professional education was going to develop, that after all education, both medical and dental, was very much in the nature of a critical study as to what was the real essence—how much was desirable and how much useless frills.

Dr. Hoff was pleased with the manner in which Major Arnold had summed up the situation in professional education. The object of this Association was to make advancement in dental education, but the Association had been held back in this respect by traditions in the educational system that could not be quickly thrown off. This Association had been discussing these problems for some years and trying to decide the best plan to adopt. This education should give to the members of the Association new courage to support their convictions as to their future course. He thought the experience of the medical profession should be valuable in enabling dental educators to decide upon the best plan of procedure.

Dr. Kennerly said he had never had so clearly demonstrated to him the necessity for more predental education as in his experience in putting into operation the four-year course. He believed there should be a preliminary education of at least one year before any technical subjects were added.

Dr. Rice, Tufts College, expressed his pleasure in having the privilege of listening to the discussion and wished to record the fact that the school with which he was associated was in thorough sympathy with the movement for advanced dental education. The dental profession had been in the habit of claiming that it was a specialty of medicine, but unfortunately the rank and file of the profession could not qualify as such specialists. In an effort to substantiate that claim, his school had taken steps to increase the medical subjects in the dental curriculum.

Dr. Moorehead recalled the time when a special meeting of the university schools was called in conference at Chicago by President James, of the University of Illinois, for the purpose of establishing a standard that would give the schools a different type of man rather than with the sole idea of giving more years of instruction after the man had entered the professional course. The experience of his school with the four-year course was fairly satisfactory, because it had placed in the first year curriculum practically a predental course of instruction before that in detailed dentistry; for example, the men were given ten hours a week in zoology, nine in chemistry, six in mathematics, etc. In watching that group of students he was satisfied that they were developing a different attitude of mind toward dentistry from the men who started in with technical

procedures in the dental laboratory. The object, he thought, should be to produce an educational program that would prepare a man for wide usefulness, a man trained to think.

Major Arnold said that he thought this organization should clearly define just what the four-year dental course was.

Dr. Moorehead explained that at the conference in Chicago called by President James, there was adopted by the university schools a curriculum content of 4800 hours minimum, of which 600 hours might be devoted to subjects classified under the term of "ancillary" subjects, and placed anywhere in the curriculum at the discretion of the faculty; his school had seen fit to place them all in the first year of the course.

Major Arnold insisted that the distinction between predental and dental education should be outlined more definitely; that this Association was the kind of organization to express itself on such topics. He expressed a hope of good results from this conference, his reason for speaking on these matters was that the army was asking for a definition of terms. He thought this a golden opportunity for making an effective step in the advancement of dental education. He further expressed the belief that the more subjects taken out of the ancillary classification and placed in the predental classification, the better.

Dr. Kennerly was convinced, after listening to Major Arnold, that in order for this Association to hold the position it had assumed since its organization, it could do but one thing at this time. He was in sympathy with Dr. Smith's plan, but he thought the jump was a little too far for one step. He was in agreement with the view that the four-year dental course should be devoted to strictly professional teaching, with the predental subjects taken before the beginning of the dental course.

Dr. Smith explained further that his plan would allow a man to take three years in medicine, making the fourth year elective; with one more year, the man could come out with the special dental degree. That plan, he thought, would simplify the difficulties of both dental and medical courses.

Dr. Gillette said they were endeavoring to solve the problem at Columbia much as Dr. Smith had outlined; both dental and medical men were required to have two years of preliminary training.

Dr. Smith said there was only one way in which the dental profession should hope to be recognized by medicine; that was by the hall mark of the degree in medicine.

The Association then adjourned until the afternoon session.

The afternoon meeting was called to order by the president, Dr. Breene, at two o'clock.

Dr. Breene called attention to the suggestion at the last meeting concerning the inauguration by schools of the Association of courses for dental hygienists.

Dr. Owre, speaking for the educational committee, stated as part of the report of the committee, that the question of courses for dental hygienists was in a very chaotic state. There was no united action; and there was an effort in certain quarters to convert such a course into a commercial scheme. He thought it desirable that this Association outline the status of the dental nurse and the necessary training. If it were to say the professional nurse only shall be eligible, this would cover the ground at once. If it were to say the prerequisites shall be high school graduation and one year of general nursing, more training should be given in the hygienist's course than is being given at present. The solution of this problem could best be arrived at by a joint meeting representing this and other dental organizations.

With regard to postgraduate instruction, another matter which was referred to the Committee on Education, he thought it best to decide first upon undergraduate instruction, in order to see what was required for a postgraduate course. As to the character of courses, he thought that should be decided upon by this Association. In the school with which he was associated, a man could at present take the postgraduate course in the university and get a Master's degree in science, his thesis being on a dental subject. There were few men, however, who would present themselves for such instruction. He said that opportunity was open at all times for men to take advanced instruction in the school without any special degree being given for such work. It was desirable, he thought, that the university schools take up this subject with their graduate departments and arrange a true course in the school of dentistry, which would fulfill the requirements of the graduate schools in scope and content; that it should be a natural evolution in the dental department, but under the charge of the university graduate school, like other graduate courses, and should lead to a higher degree.

Dr. Hoff stated that five states, Maine, New York, Massachusetts, Iowa, and Connecticut at present legalized the dental hygienist.

With regard to the status of the hygienist, Dr. Hoff agreed that the Association should decide the requirements of the curriculum, and the hygienist's status in the profession. Each state, he said, had adopted a different legislation governing the question. The New York law was supposed to be the standard, but he did not consider it sufficiently rigid to meet his ideas with regard to the function of the dental hygienist. Since the dental hygienist had been legalized independently of the profession it seemed that the schools which undertook to train the hygienist should adopt a course that would give the best training possible with a definite understanding as to what her status should be.

Dr. Smith said that the training of the dental hygienist should depend on what she was expected to do. The dental hygienist was not a nurse in the sense of a medical nurse and he did not think it was necessary for her to have the training of the medical nurse; if her duties were to be those of an assistant to the principal in the office in the matter of cleaning teeth and helping generally in such work as radiography, etc., he did not think it necessary for her to have two years' training.

Dr. Hoff considered that one of her most important functions should be that of inspecting the mouths of children and older patients and diagnosing ordinary conditions, particularly in children's mouths. He regarded it a more serious calling than merely that of helper in the office. Perhaps a year of training would be sufficient, but it should be built on a high school education. If the schools of this Association undertook such education, he thought it desirable it should be placed on a more professional basis than simply that of a helper in the office and a tooth cleaner.

Dr. Turner expressed the opinion that Dr. Fones' original idea with regard to the dental hygienist was that she was not only supposed to keep the teeth of patients clean, but was also to do a certain amount of educational work among patients. His own idea was that the dental hygienist should be qualified to assist the dentist along certain lines and that she should be given an education based on dental information which would be useful elsewhere than in the dental office, somewhat in the nature of the present sanitary officer. With regard to postgraduate instruction, he thought Dr. Owre was right when he said it should be done in proper academic form with the idea that the instruction should lead to a higher degree.

Dr. Owre considered that if the function of the hygienist was to be in the nature of that of the sanitary officer, she should have the proper prerequisites. The whole question, he thought, pointed back to the fact that dental education was unorganized, that there was no centralized body working for higher ideals and making progress. With regard to the remarks of Major Arnold, they appealed to him as simply a recapitulation of some of the things that had been agreed upon in this body. There was no question in his mind but that the dental and medical professions should be one profession and that our duty was to work in that direction. He considered that the education of two professions dealing with the healing art should be on the same fundamental basis, and that the best method of coming to an agreement in a solution of the problem was by the establishment of a joint committee of the two professions to decide upon the best plan for the amalgamation of the two courses.

Dr. Kennerly thought that the plan of a joint committee of the two professions working together with the idea of adjusting the two courses of instruction was a good one; that the medical profession would not recognize dentistry as an equivalent profession to medicine until the same requirements were made of dental students as of medical students.

Dr. Smith moved that the educational committee of this Association be appointed to meet with the Committee of the American Medical Association on Schools with a view to consultation on a curriculum for both dentistry and medicine.

Motion carried.

On motion the report of the educational committee was accepted.

Dr. Mauk announced that the University of California, College of Dentistry, had already adopted such a course as outlined by Dr. Owre in the report of the educational committee.

The president called attention to the activities of the Educational Council in standardizing dental schools and suggested that this Association should be represented in that body.

Dr. Moorehead thought it possible to send a memorial to the surgeon-general's office through Major Arnold, formally stating the fact that this Association represented a certain group of dental educational institutions which should be recognized in the creation of standards for army purposes. He moved that the Committee on Education be instructed to communicate formally with the surgeon-general's office, stating the position of this group of colleges in regard to standardizing education for army and military purposes.

Motion carried.

Dr. Ward, chairman of the executive committee, reported a formal application for membership from Tufts College Dental School.

Dr. Ward said that the executive committee was somewhat handicapped on action of applications for membership by lack of authority to conduct examinations of applicants in order to determine the qualifications for membership in the Association. He asked that the by-laws be made more explicit on this point, giving the executive committee authority to conduct such examinations. He moved that the chair appoint a committee of two members to ascertain the requirements of the Carnegie Foundation, and to present to the Association at the next annual meeting regulations covering the points outlined above.

Motion carried.

It was moved and carried that a committee be appointed to draft suitable resolutions on behalf of the Association with regard to Dr. Kirk's retirement from active professional work. The president appointed as such committee, Drs. Hoff and Owre.

Motion was made and carried that the report of the treasurer be referred to the executive committee for auditing.

Motion was made and carried that the report of the secretary be accepted.

Motion was made and carried that the resignation of Dr. Kirk as secretary-treasurer be accepted.

The next order of business was the election of officers for the ensuing year which resulted as follows:

*President*—Dr. J. H. Kennerly
*Vice-president*—Dr. F. B. Moorehead
*Secretary-treasurer*—Dr. M. L. Ward
*Executive Committee*—Dr. F. T. Breene, chairman, two years; Dr. Charles R. Turner, one year; Dr. J. H. Kennerly, ex officio
*Educational Committee*—Dr. Alfred Owre, chairman, three years; Dr. G. S. Millberry, two years.

Dr. Kennerly moved that standing resolution No. 6 be referred to the committee on revision of the constitution and by-laws.

Dr. Owre moved that hereafter the proceedings of the Association be published in the *Journal of the National Dental Association*.

Motion carried.

Dr. Owre also moved that the Association extend a vote of appreciation to the *Dental Cosmos* in some appropriate manner and moved that a committee be appointed for this purpose.

Motion carried. The chair appointed as such committee Drs. Hoff and Owre.

Dr. Hoff presented the following resolution:

*Resolved,* That in view of the long and valued service of Dr. E. C. Kirk as an officer and member of the Dental Faculties' Association of American Universities, and in view of our very friendly personal relations, we desire to express formally our sincere regret that he cannot longer maintain his official and personal relations with this organization. We extend to him our sincere wishes for abundant success and happiness in his new relation to the profession and to the cause of dental education.

(Signed) N. S. Hoff,
Alfred Owre.

The resolution was adopted.

The meeting adjourned, subject to the call of the executive committee.

## SPECIAL MEETING HELD IN CHICAGO, JUNE 1, 1918

A special meeting of the Dental Faculties' Association of American Universities was called to order at 10 o'clock Saturday, June 1, by the president, Dr. Kennerly, in the Auditorium Hotel, Chicago, Illinois.

Membership universities were represented as follows: Illinois, Dean F. B. Moorehead; Iowa, Dean F. T. Breene; Michigan, Dean M. L. Ward; Minnesota, Dean Alfred Owre; Ohio, Dean H. M. Seamans; Pennsylvania, Dean C. R. Turner; Washington University, Dean J. H. Kennerly, president.

The first matter of business was a report by the chairman of the educational committee, Dr. Owre, on the meeting of the Dental Educational Council of America, which he attended by invitation in New York in March. (The Dental Educational Council as then constituted was a body made up of five members each from the National Dental Association, the National Board of Dental Examiners, and the National Association of Dental Faculties, with the avowed object of "the advancement of dental education and the unifying of the standards of the various national bodies of the dental profession." During the war this body was

authorized by the surgeon-general's office of the United States Army to rate the various dental colleges of the United States, in order to have a classification for use by the surgeon-general.) Dr. Owre's report, which was made orally, related to the whole matter gone over by the Educational Council and representatives of the government, involved in rating the colleges for the War Department. At the conclusion of the report, it seemed desirable that if possible the university schools should make their influence felt in the final rating to be made in July. The standard which had been tentatively adopted by the Educational Council of America was then taken up and discussed in detail, notations being made wherein the various requirements were in conflict with the standards maintained by the universities.

The meeting adjourned for luncheon, during which the discussion was continued; the meeting was called to order following luncheon, and the discussion resumed. At the conclusion of the discussion, motion was made and unanimously carried that the secretary of the Dental Faculties' Association of American Universities be requested to ask, through the secretary of the Dental Educational Council of America, for equal representation with the other bodies of which the Council is composed. This motion was followed by one naming the committee. If equal representation of five members were granted as asked, the following men were to serve: the chairman of the educational committee, the president, the secretary, and Deans Seamans and Turner; if only three representatives were allowed, they were to be the chairman of the educational committee, the secretary, and the president; if only two representatives were allowed, they were to be the chairman of the educational committee and the secretary.

By motion the Association instructed the secretary-treasurer to draw a voucher for the expenses of Dr. Owre to the meeting of the Dental Educational Council of America held in New York.

Dr. Owre also reported on the proposed consultation of the educational committee with the Committee on Schools of the American Medical Association. He had conferred with the chairman of this committee, Major Arnold. The conclusion reached after thorough discussion was that until dental schools should exact a preprofessional requirement equivalent to that prescribed by medical schools it was useless to discuss a joint professional program.

The Association adjourned.

## ELEVENTH ANNUAL MEETING

The eleventh annual meeting of the Dental Faculties' Association of American Universities was called to order at 11 o'clock, January 27, 1919, by the president, Dr. Kennerly, at the Piedmont Hotel, Atlanta, Georgia. Membership universities were represented as follows: California, Dean G. S. Millberry; Harvard, Dean Eugene H. Smith; Illinois, Dean F. B. Moorehead; Iowa, Dean F. T. Breene; Michigan, Dean M. L. Ward; Minnesota, Dean Alfred Owre; Ohio, Dean H. M. Seamans; Pennsylvania, Dean C. R. Turner.

Visitors: Dr. Bunting, of Michigan; Dr. Wright, of Harvard.

The minutes of the last annual meeting, and the minutes of the special meeting held in Chicago, June 1, were read and approved.

On motion the regular order of business was suspended and the secretary's report of his activities with respect to the application of the Dental Faculties' Association of American Universities for representation on the Dental Educational Council of America was asked for.

The secretary reported that following instructions of the Association of June 1, he had made application to the Dental Educational Council for representation on the Council, and had sent a copy of the request to Colonel Arnold of the surgeon-general's office, with a letter of explanation detailing reasons for making the application for membership.

The secretary of the Dental Educational Council had replied that the application would be presented at the next meeting of the Council, to be held at Chicago early in August, immediately preceding the meeting of the National Dental Association.

Colonel Arnold had replied that it seemed expedient for the government to continue to recognize the Dental Educational Council "as the best available authority on matters of dental education." Without apparently having gone into the question of similarity of position of the two larger bodies of educators, Colonel Arnold had suggested that it might be well for the Dental Faculties' Association of American Universities to reunite with the National Association of Dental Faculties, since the university medical schools, once contemplating withdrawal from the Association of American Medical Colleges, had decided to remain in the larger body.

At the August meeting of the Dental Educational Council, with Colonel Arnold present, it had been voted unanimously that the "Request of the Dental Faculties' Association of American Universities for representation on this body be placed upon the table, with the thought in mind that the Dental Faculties' Association of American Universities may be given time to consider the idea of consolidating with the National Association of Dental Faculties."

The secretary stated further that the chairman of the Council had been instructed to appoint a committee of three from the Council; the secretary had been instructed to ask the National Association of Dental Faculties to appoint a like committee of three, and to invite the Dental Faculties' Association of American Universities to appoint a similar committee of three, to meet in conference to discuss this situation at as early a time as might be mutually convenient. These committees were duly appointed, as follows:

For the Dental Faculties' Association of American Universities, Drs. Kennerly, Seamans, and Ward; for the National Association of Dental Faculties, Drs. Herbert C. Miller, H. E. Friesell, and Henry W. Morgan; for the Educational Council, Drs. A. L. Midgley, L. L. Barber, and Henry L. Banzhaf.

The secretary further reported that the committee had decided to hold a meeting while Colonel Arnold was in Chicago, in order that they might hear Colonel Arnold's views. This was held at the Congress Hotel, August 6, 1918. with the entire committee present except Dr. Morgan, of the National Association of Dental Faculties.

Dr. Midgley was elected chairman and Dr. Banzhaf secretary. The object of the meeting was stated by the chairman, who explained the consideration given the request of the Dental Faculties' Association of American Universities for representation on the Dental Educational Council of America.

Colonel Arnold was requested to explain why the Dental Educational Council had been recognized as the proper body to rate the dental colleges for the surgeon-general. He discussed the conditions that had made it necessary for the government to have a rating of the colleges, and why the surgeon-general had recognized the Council. In his discussion of the miserable conditions that exist in some of the dental colleges of this country he presented no thoughts new to the university representatives, neither did he seem to underrate the better type of dental education because of these conditions. On the other hand, he acknowledged similar

conditions in other branches of education, including medicine, and stated that, in his opinion, no institution of learning would be permitted to receive government students for special training except those known to give high grade instruction.

In discussing why the Dental Educational Council was recognized by the surgeon-general, Colonel Arnold presented one of two views of the situation with which some of the members of the Dental Faculties' Association of American Universities are possibly not familiar. It appeared that the government had to recognize as a legal practitioner of dentistry any dentist who was legally qualified to practice in one of the states of the Union. The question was, then, to determine who should decide whether a man was a legally qualified practitioner of dentistry in a state. Colonel Arnold stated that on advice he was obliged to recognize only the state board of dental examiners whenever a question arose over the legal status of a dentist. On the same advice, he was obliged to recognize the state board of dental examiners, as far as possible, in determining which dental schools should be recognized for the duration of the war. On application to the American Institute of Dental Teachers, for information, he had been referred to certain channels; in this instance he was referred to the Dental Educational Council of America. His thought seemed to be that nothing but legally constituted bodies could be recognized by the War Department; his sincerity and his arguments (reported the secretary) convinced all present that for the duration of the war we should co-operate with such legally constituted bodies as existed in establishing proper standards for the rating of the dental schools from the surgeon-general.

It appeared that Colonel Arnold viewed the Dental Educational Council as a semilegal body, since it was composed in part of five members from the National Board of Dental Examiners. The secretary of the Dental Faculties' Association of American Universities directed a question to Colonel Arnold during this meeting as follows: "Is recognition of the Dental Educational Council not recognition of the National Dental Association and the National Association of Dental Faculties, since each of these bodies has five members on the Council?" And, "If this be true, is it not recognition of other bodies than those which could be recorded as having a legal standing?"

To this query Colonel Arnold replied that if there should be dissension in the Council from the National Board of Dental Examiners, or if the ratio of membership from that board should be changed, he might be obliged to view the situation differently, thereby implying that if recognition should be given to our request for representation from the Dental Faculties' Association of American Universities without also raising the number from the National Board of Dental Examiners, he would not be able to recognize the Dental Educational Council. On further discussion of this question he spoke quite frankly against permitting what he called interested parties to take part in the rating of their own institutions, although he commended in strong terms the work of faculty members already on the Council. It was evident, however, that he did not wish any larger number from the faculties' associations.

Colonel Arnold then renewed his suggestion that the question of consolidation be taken up at the earliest possible moment, and ventured a criticism of the Dental Faculties' Association of American Universities for not being in session at the time, so that official action could be taken. A general discussion followed relative to the possibilities of a consolidation of the two associations. President Kennerly reviewed some of the reasons for the organization of our Association, and Drs. Friesell and Banzhaf at once declared that the objections to the older body no longer existed. Dean Seamans and the secretary, in the ensuing discussion, were unable to raise any objection that Drs. Friesell and Banzhaf did not

maintain could be eliminated. Drs. Barber, Midgley, and Miller then urged that a committee be appointed to determine whether a consolidation could not be effected. A motion was passed that the chair appoint a committee of five to present the outline of a plan for the consolidation of the two associations, at a joint meeting of the two bodies to be called at the request of the committee. The chairman, Dr. Midgley, appointed Drs. Banzhaf, Friesell, Kennerly, and Ward; and Colonel Arnold insisted that Dr. Midgley be the fifth member.

The secretary, in continuing his report, stated that during the latter part of the summer considerable correspondence had been carried on between the secretary of the Association and Drs. Banzhaf and Friesell, the two members of the committee who had assured the representatives of the Association that there were no obstacles to a consolidation, with a view to determining the basis of their belief. A copy of the present constitution and by-laws of the older association had been obtained and found to contain the same petty rules, regulations, and police powers that it was suspected it contained, and which are only applicable to private schools. Some very pointed questions had been asked Drs. Friesell and Banzhaf; it had become evident that it was the intention to continue to police the dental schools of the country, but with a transfer of such powers to the Dental Educational Council. The secretary of the Council had been asked if he were in a position to give an opinion on the activities of the Council, and had been told plainly that the Dental Faculties' Association of American Universities could and would nullify the work of the Council, if the Council's activities were not carried on in harmony with the standards of the leading universities of this country, or if it attempted to impose police powers upon institutions that were integral parts of universities of recognized standing. The secretary of the Council had replied that he could not speak for the Council, but believed that our Association had nothing to do with the activities of the Council.

The committee on consolidation had been finally called together at Chicago, January 6, with all five members present. Dr. Banzhaf was elected secretary of the committee. The minutes of the committee of nine that met during the meeting of the National Dental Association were read. A general discussion followed. Dr. Banzhaf asked the privilege of presenting a constitution and by-laws he had drafted with a view to eliminating the objectionable matter. A copy of it follows.

The undersigned, for the purpose of promoting the best interests of dental education throughout the United States of America, and for such other purposes as may hereafter be determined upon by the members of this Association, associate together and adopt the following constitution:

### ARTICLE I

#### Name

The name of this association shall be "The American Association of Dental College Faculties."

### ARTICLE II

#### Membership

The original signers hereto, and until they are removed from membership in the manner hereinafter provided, shall constitute the membership of this Association. Colleges agreeing to maintain a grade of instruction equivalent to the standard set by this Association who subscribe to this constitution and to the by-laws of this Association, who have made written application for membership which has been approved of by at least two members of this Association, and who have furnished such information as may be requested by the executive council of this Association, may hereafter be elected to membership herein upon a two-thirds vote of all members present at any regular or special meeting of its members.

## ARTICLE III

### Officers

The officers, who shall be elected by a majority vote of members, to serve until their successors be elected and qualified, shall be a president, vice-president and secretary-treasurer. The last office may be held by one person. These officers shall constitute the executive council and as such shall have general charge and supervision of the funds and business of this Association when not in actual session. Such executive council shall arrange for and fix the time for annual meetings of members, and shall perform such other duties as may be fixed by the by-laws. The president, vice-president and secretary-treasurer shall perform such duties as are usually performed by similar officers of similar associations. A majority shall constitute a quorum for the transaction of business. The members of this Association may provide for other and additional officers and prescribe their duties in the by-laws of this Association.

## ARTICLE IV

### Voting

Each college holding membership in good standing is entitled to one vote at each meeting of the members of this Association, the authority of such person so to represent such college member to be established in such manner as the by-laws of this Association may provide, but other than voting representatives of such members may address the Association or discuss matters coming before it subject to such rules and regulations as may be prescribed by the by-laws or by the proper officers of this Association.

## ARTICLE V

### By-Laws

The members of this Association may, from time to time, adopt and amend by-laws not inconsistent with this constitution for carrying on the business of the Association, and for the regulation of its members, provided such by-laws or any amendments thereto are carried by a two-thirds vote of all the members of this Association. The constitution may be amended by a vote of two thirds of all the members of this Association; the manner of voting both for the amendment of this constitution and the by-laws to be fixed by the by-laws of this Association.

## ARTICLE VI

### Meeting

The regular annual and special meetings shall be held by the members of this Association at such time and place as may be determined upon by the executive council, or as may be requested by a majority of its members. A majority of the members present at any regular or special meeting shall constitute a quorum for the transaction of business other than the amendment of the constitution.

## ARTICLE VII

### Dues

The annual dues for each member of this Association shall be fifty ($50) payable in advance, but the amount thereof may be changed by the by-laws of this Association, and the members hereof may also have special assessments levied upon them in addition to such regular annual dues as may be fixed in the manner provided for in the by-laws.

## ARTICLE VIII

### Constitution

Members may be removed from this Association at any regular meeting, upon complaint of the executive council, or a majority thereof, by a two-thirds vote of members present, which complaint must be in writing, and a copy specifying the cause of complaint served on the member to be removed at least sixty days before the date of the meeting at which the complaint is to be heard, and after having been given a reasonable opportunity to be heard in defense at such meeting, the procedure and manner of such trial to be determined by the executive council.

*IN WITNESS WHEREOF,* we have hereunto set our hands and seals this..... day of January, 1919.

## BY-LAWS

### Section I

The executive council and the officers of this Association shall keep accurate records of all information coming to it in regard to the physical and educational condition prevailing in colleges, and take such action as may be necessary in the emergencies. The secretary-treasurer shall make a detailed report of all regular and special meetings held, and shall present at such

meetings a summary of prevailing conditions in the colleges, together with recommendations for such action by the Association as may seem advisable for greater efficiency. The executive council shall make an annual financial report at the close of each year, and shall, at the beginning of each year, submit an estimated expense budget for the ensuing year.

SECTION II

Each member of this Association shall use its best efforts in bettering the quality of instruction and management of dental colleges, in order to give promotion of the highest professional ideals; but each member of this Association shall have the freest exercise of internal management consistent with the purposes expressed herein, and the purposes of the Association expressed in its constitution.

SECTION III

The executive council of this Association shall be vested with the judicial power of interpreting the by-laws and constitution of this Association, and any rules or regulations adopted by them or the Association, but any member hereto affected thereby may appeal from such decision or conclusion of the executive council to the members of this Association at any regular or special session thereof.

SECTION IV

The right of the representative of each member to vote and represent such member shall be in writing, signed by the president or other general officer of such college and may be in the alternative, and may be in the following form:

To the American Association of Dental College Faculties:

This is to certify that either Dr..... or ..... is authorized to represent the undersigned college at the regular meeting of this Association to be held at ....., and to vote in its behalf at such meeting, and to represent this member in dealing with the said Association ad interim regular meetings of such Association, until written notice to the contrary is given to such Association.

..... College

By .....

SECTION V

The executive council of this Association shall cause to be prepared, for reference, a roster of all officers and teachers of the schools who are members of this Association, with detail of the character of the work done by them and shall from time to time cause the same to be corrected and kept up to date. The executive council may give such information to any member of this Association, or to any faculty member or members for any proper purpose, and to assist generally in bringing dental teachers in direct contact with others who are engaged in similar activities. The executive council may take such means to collect and preserve authoritative definite information as to activities of colleges and their teachers as shall be deemed by it necessary.

SECTION VI

*Entrance requirements.*—The preliminary education requirements for admission to colleges holding membership in this Association can be met by a certificate of graduation, with not less than fifteen units of credit, from an accredited high school which maintains a four-year course of study that is recognized by the United States Bureau of Education; or, by equivalent credits from a standard preparatory school, literary college, or university. Applicants having other admission credentials must submit them to the Dental Educational Council of America for certification.

SECTION VII

*Graduation requirements.*—The course of study for the dental degree shall include attendance in a recognized dental college for four full academic sessions, each session consisting of not less than thirty-two weeks of actual instruction. At least thirty-three class, laboratory, or clinic hours, exclusive of repetitions or duplications, shall be scheduled for each week and shall be equally distributed over five and one-half days each week. Graduation in medicine, or students having at least two years of medical credit, from fully accredited medical schools, may be admitted to the second year in the dental course. Matriculates in dental colleges holding membership in the Association may be transferred to other dental colleges by consent of the deans of the colleges concerned, with proper adjustment of credit.

SECTION VIII

*Courses of study.*—The following subjects shall be taught to the extent indicated below in all colleges holding membership in this Association. Any variation in the schedule should be made in conference with the Dental Educational Council of America.

For pedagogic reasons, and to facilitate the transfer of students, the following order of administration and the time devoted to the several subjects is advised:

| | |
|---|---|
| Operative and clinical dentistry | 1300 |
| Prosthetic technics | 384 |
| Crown and bridge technics | 320 |
| Operative technics | 160 |
| Oral hygiene | 32 |
| Dental anatomy | 96 |
| Orthodontia | 96 |
| Oral surgery | 96 |
| Physics, biology, or both | 192 |
| Chemistry (inorganic, organic, physiological, metallurgical) | 320 |
| Technical drawing | 40 |
| Anatomy | 320 |
| Histology | 128 |
| Pathology (general and dental) | 128 |
| Materia medica | 64 |
| Bacteriology | 128 |
| Physiology | 128 |
| Dental rhetoric | 96 |
| Physical diagnosis, anesthesia | 32 |
| Radiology | 32 |
| Jurisprudence, dental history, ethics, economics | 32 |
| Additions to above, or other subjects | 268 |
| Total | 4400 |

Drs. Banzhaf, Friesell, and Conzett (who was present by courtesy) were asked if they contemplated a transfer of the former powers of the National Association of Dental Faculties to the Educational Council, and if this were not the reason why they were willing to adopt a constitution so similar in many respects to that of the Dental Faculties' Association of American Universities. All replied in the affirmative, stating that the time had not come when police powers were unnecessary. When asked how our Association was to benefit by a consolidation if the police powers were to be retained by the Council, they replied that we were to trust the Council to do the right thing. After further discussion the meeting was adjourned.

The secretary of the Association, having concluded his report, then asked that, in the event the Association be continued, the constitution be revised in regard to membership requirements, to read, "The membership of this Association shall be limited to dental schools which are an integral part of state universities, or other universities, of equal standing; and such other dental schools as have a practical working affiliation with medical schools and colleges of literature of well recognized standing."

The secretary further suggested the submission of a questionnaire to all prospective new members of the Association.

The president then asked for a general discussion of the report, which was begun by Dr. Owre. Dr. Owre questioned the ability of the Educational Council to continue its activities without the assistance of the government, which it had for the duration of the war. He also dwelt at some length on the question of the transfer of the police powers formerly exercised by the National Association of Dental Faculties to the Educational Council, and closed with the suggestion that the Association withdraw its request for representation on the Dental Educational Council.

Dean Smith continued the discussion of the report under three headings: first, shall the Association consolidate with the older association; second, shall it enlarge its membership; third, shall it continue as it has in the past? He seemed to have a positive opinion that the consolidation should not be effected at this time, but expressed himself as being open to conviction to the contrary.

Following a general discussion, it was moved by Dr. Smith and seconded by Dr. Turner that it was the sense of the Association that it was inexpedient to consider any form of consolidation at that time. The discussion was continued by Deans Millberry and Moorehead, both of whom felt, that while there was no question that a consolidation should not be effected, another form of motion might better convey to the older association the attitude of this body. Discussion continued until adjournment for the luncheon, closing with the suggestion that Dr. Midgley, president of the Dental Educational Council, be asked to attend the afternoon session and that Dean Smith's motion be the special order of the afternoon.

Motion carried.

At the afternoon session Dr. Midgley was asked several questions regarding the work of the Council, after which he was given an opportunity to present his views concerning a consolidation of the two associations. He expressed himself as wholly in favor of such a course. Several of the members of this Association then pointed out to him the obstacles to this action. Dr. Turner then asked Dr. Midgley how the Dental Educational Council arrived at a uniform curriculum for the dental colleges of the United States without the assistance of the university schools. These, Dr. Turner pointed out, because of their organic relationships with various universities with varying schedules, were unable to arrive at an absolutely hard and fast agreement on a curriculum.

A general and very interesting discussion followed, at the conclusion of which Dr. Owre moved a vote of thanks to Dr. Midgley for coming to the meeting. This motion was carried, and Dr. Midgley withdrew.

Dr. Smith's motion was then read; Dr. Moorehead offered a substitute motion which was amended by Dr. Turner to read as follows:

The Dental Faculties' Association of American Universities, having carefully and earnestly considered the proposal presented by the Dental Educational Council of America for the consolidation of the Association with the National Association of Dental Faculties, and the formation thereby of a new association, and fully realizing the importance of the object which the Council has in mind, and wishing to co-operate in every way in the attainment of this object, desires to submit the following memoranda:

1. The representatives of the universities who are members of the Dental Faculties' Association of American Universities have no authority at this time to enter into new covenants, as questions of policy are decided by the governing bodies of these several universities.

2. The far-reaching and important influence of the proposed union of the two associations deserves the utmost care and consideration in the formulation of a wise plan for the attainment of the object under discussion.

3. We suggest that a committee of five members be appointed from each of the two organizations jointly to examine the situation, and to report their findings to their respective associations at their next meetings.

General discussion continued without action on the motion until well into the evening, when the motion was carried. Dr. Millberry moved that a typewritten copy of the motion be made and presented to Dr. Midgley, president of the Dental Educational Council of America. The motion was carried and the meeting adjourned.

At the evening session that portion of the secretary's report referring to the constitution was made the order of business. Following a reading of the section of the secretary's report dealing with the proposed amendment, a general discussion was held. At the conclusion of this it seemed evident that the Association would have to inaugurate a program of activities in the near future, and that this would necessitate amendments to the constitution. On motion the president was authorized to appoint a committee of five to inaugurate a program, and present within ninety days, if possible, such amendments as seemed necessary to permit

the carrying out of the projected program. The following committee was appointed: Drs. Millberry, Moorehead, Owre, Turner, and Ward, chairman.

Dean Millberry presented the following suggestion in the form of a motion for an amendment to the constitution with respect to membership:

> Following the word *university* at the end of the sixth line in Article III of the constitution, insert as follows: "or maintaining an organic relationship with any university having a literary department recognized as giving a standard course of instruction by the Bureau of Education of the United States Government and a medical department recognized and rated Class A by the Council of Education of the American Medical Association.

On motion the suggestion was referred to the committee of five that had been appointed for the purpose of inaugurating a program and formulating necessary amendments to the constitution.

On motion the secretary's report of activities was accepted and ordered placed on file.

On motion Tufts College was elected a member of this Association.

Dr. Albert Midgley was admitted to present a communication from the National Association of Dental Faculties which stated that a committee of five had been appointed and was ready to meet a like committee from the Dental Faculties' Association of American Universities further to consider the matter of consolidation of the two associations. On motion the committee of five already appointed to inaugurate a program was authorized to take charge of this matter.

The secretary presented a form of questionnaire to be submitted to prospective members of the Association. On motion this was referred to the same committee of five.

The report of the educational committee was then read by Dr. Owre. The report consisted of a tabulation of the hours taught by each of the colleges in the Association, and an oral discussion of the variations. A general and profitable discussion ensued concerning the reasons for the apparent great differences in the number of hours taught. It seemed to be the unanimous opinion of those present that it was not possible to have much greater uniformity because of the variations in the arrangement of the work scheduled in dental curricula and taught in other departments of the universities.

The meeting adjourned until the morning of January 29.

The first order of business on January 29 was a report from the committee of five appointed to inaugurate a program, amend the constitution, and take up the matter of consolidation with a committee from the National Association of Dental Faculties, on what had been accomplished in the interim regarding a consolidation. The committee reported orally that it had met with the five members of the latter body and had carried on a long discussion over the matter of consolidation. On motion, the report was accepted, and the committee continued.

Dr. Augustus S. Downing, assistant-commissioner of education of the state of New York, was present by invitation. The secretary was asked to outline briefly the results of his correspondence concerning the registration of university schools by the state of New York. There was then a general discussion of the requirements for registration in the state of New York. This led to a consideration of the action of the schools of this Association at its meeting in Philadelphia in recommending a prerequisite of one year's college work for entrance to the four-year course in 1921. Dr. Owre spoke at length on the desirability of a predental year. A general discussion ensued, with Dr. Downing participating. A motion was then passed that it was the sense of the Association that each dean should take up with the governing bodies of his college, within ninety days, the question of instituting a prerequisite of one year's college work in 1920 instead of 1921.

On motion the secretary was authorized to take up with Dr. Downing, through the president of his university, the matter of registration of the schools of the Association.

The secretary was instructed to notify the secretary of the Dental Educational Council of America that it was the desire of the Dental Faculties' Association of American Universities to withdraw its request for representation on the Council.

The matter of the recognition to be given by the university schools to the work of the Dental Educational Council was given lengthy consideration, resulting in a general agreement, without motion, that, while courtesy should always be extended, no action should be taken which would incur a recognition of authority of the Dental Educational Council over the university schools.

Special mention was made of one phase of the situation which should have no action on the part of any dean within the next ninety days—no lists of freshman students were to be submitted to the Council, for the reason that this would imply a recognition of the Council's authority over the university schools.

The meeting adjourned, to reconvene at four o'clock.

On Dr. Moorehead's motion, the educational committee was requested to prepare a statement for the next annual meeting of the Association regarding the attitude the Association should maintain toward the Dental Educational Council of America on three points—entrance requirements, examination of schools, and the Council's curriculum.

Officers were then elected as follows:

*President*—Dr. F. B. Moorehead
*Vice-president*—Dr. C. S. Millberry
*Secretary-treasurer*—Dr. M. L. Ward
*Executive Committee*—Dr. C. R. Turner, two years.

Motion was carried to allow the secretary-treasurer $200 a year for clerical work.

The need of a general revision of the constitution and by-laws was discussed at length by Drs. Smith and Millberry, and a motion carried that the consideration of a general revision be made at the next annual meeting.

The Association adjourned, to meet within ninety days at Chicago if practicable.

## SPECIAL MEETING HELD IN CHICAGO, JUNE 21, 1919

A special meeting of the Dental Faculties' Association of American Universities was called to order at ten o'clock, June 21, 1919, by the president, Dr. Moorehead, at the University Club in Chicago. Membership universities were represented as follows: Illinois, Dean F. B. Moorehead, president; Iowa, Dean F. T. Breene; Michigan, Dean M. L. Ward; Minnesota, Dean Alfred Owre; Ohio, Dean H. M. Seamans.

Visitors: Drs. Noyes, Welker, and Gallie, of Illinois; Mr. McConn, registrar of the University of Illinois; and Dr. Colwell, secretary of the Council on Medical Education of the American Medical Association.

The first matter of business was a consideration of the course to be pursued with students enrolled in the three-year course who had been taken away by the draft or for other reasons had been unable to complete their course in consecutive years. On motion the Association recommended that such students be allowed to finish their course, but that they be urged to make every effort to do so as soon as possible after enrollment.

The requirement of the Dental Educational Council that advanced credit in time be given only to students who had completed two full years in Class A medical schools was then taken up at length. Practically everyone present expressed the opinion that the requirements were impracticable and unjust. Registrar McConn then presented the following suggestion:

> Time credit on the dental curriculum should be strictly proportional to subject credit, that is, a man who received subject credit for work successfully completed in any recognized college of the university or professional school should receive time credit in the amount represented by that subject in the dental curriculum.

This was made a motion and passed unanimously as the sense of the meeting.

There followed a discussion of the advisability of colleges in the Association offering combined degrees of bachelor of science and dental surgery. All seemed to favor the adoption of a course which would provide for both degrees, with the exception of Dean Ward, of Michigan. He stated that Michigan would not offer combined degrees in future, for the reason that the dental college had already received recognition by the graduate school of the University, and had had students accepted as candidates for the master of science degree in dentistry after graduation from the College of Dental Surgery.

On motion it was decided to adopt a rule providing as far as was practicable for the rating of all foreign students on examination, except in cases where the work done by the applicant was in a well-recognized university.

On motion the following subjects were recommended to be included in a predental year to go into effect in 1921; physics, eight hours; biology, eight hours; English, eight hours; electives, ten hours, these to be for the present made up from a foreign language, trigonometry, drawing, shop practice, botany, in cases where the student has had zoology as it was formerly taught, history and geology.

The matter of further recognition of the Dental Educational Council as a proper body to rate dental schools of the country was taken up and given very earnest consideration. After a lengthy discussion it was decided by motion that the Association should, in the interests of dental education, completely ignore the Dental Educational Council of America, until such time as the composition of this body and the standards maintained by it should be changed.

The meeting adjourned subject to call by the executive committee.

## SPECIAL MEETING HELD AT NEW ORLEANS, OCTOBER 19, 1919

A special meeting of the Dental Faculties' Association of American Universities, was called for two o'clock Sunday, October 19, 1919, at the Hotel Grunswald, New Orleans, Louisiana.

Membership universities were represented as follows: Harvard, Dean Eugene H. Smith; Illinois, Dean F. B. Moorehead; Iowa, Dean F. T. Breene; Michigan, Dean M. L. Ward; Minnesota, Dean Alfred Owre; Pennsylvania, Dean Charles R. Turner; Tufts, Dean William Rice; Washington University, Dean J. M. Kennerly.

As deans from seven of the ten membership colleges were present Sunday morning, an informal meeting was held at 10:30 o'clock to discuss the relations of the Association with the Dental Educational Council of America. Those present were Deans Breene, Kennerly, Moorehead, Owre, Rice, Smith, and Ward.

President Moorehead explained that shortly before this meeting the Dental Educational Council had invited the Dental Faculties' Association of American

Universities to send three delegates to a meeting of the Council in New Orleans, Friday, October 17, and that he had accepted, appointing Deans Owre, Turner, and Ward.

In the ensuing discussion of past relations with the Dental Educational Council, it developed that only two of the membership colleges, Harvard and Iowa, had returned to the Council a memorandum to show the number of students enrolled, and that no college had returned the questionnaire submitted by the Council earlier in the summer. This questionnaire was designed to furnish the data necessary for a rerating of the dental colleges of the United States. At two o'clock the meeting adjourned to reconvene immediately for the special meeting set for that time.

## MINUTES OF SPECIAL MEETING

The meeting was called to order by President Moorehead, who submitted the following list of subjects for discussion: Dental Educational Council, National Association of Dental Faculties; revision of the constitution, with especial reference to membership; syllabus; accredited dental colleges, domestic and foreign; honorary scholastic society; credits for advanced standing; student council; new members.

The secretary was then asked to review the meeting of the committee of the Association with the Council on October 17. He reported that the committee was asked, shortly after the meeting convened, why the Association had declined to support the work of the Council. The secretary replied in effect that inasmuch as the Dental Faculties' Association of American Universities regarded the work of the Council as defective in many respects, and inasmuch as the Council had declined to grant the Association representation on the Council, it appeared inadvisable to support the Council and thereby sponsor its work.

The committee of the Association ventured to prophesy, though speaking without authority, that if the Council should offer equal representation to both dental faculties' associations, and to adopt the standard of the American Medical Association as that for grading colleges, the Dental Faculties' Association of American Universities would support the Council.

President Moorehead then asked Dr. Owre to outline his views on the attitude the Association should maintain toward the Council. A general discussion of the subject followed.

On motion, the Association approved the action of the president in appointing a committee of three to meet with the Dental Educational Council of America, in accordance with the invitation extended the Association. On motion, the same committee that had met with the Council on October 17 was authorized to continue to represent the Association in this relation.

On motion, this committee was authorized to ask the Dental Educational Council for a statement in writing of their acceptance of our Association's proposal that there be equal representation on the Council from the two dental faculties' associations.

At this point the secretary was obliged to leave to attend another meeting. and there are no minutes on the discussions and reports, including that on syllabi, which followed.

The meeting adjourned until 8:30 o'clock.

At the Sunday evening meeting, the matter of consolidation with the National Association of Dental Faculties was taken up where it had been left at the Atlanta meeting. The committee of five appointed at the Atlanta meeting reported that the situation had not changed sufficiently since that time to warrant them in

recommending any action; that it did not seem expedient to consider further the matter of consolidation. On motion, the secretary was instructed to notify the chairman of the committee of five from the National Association of Dental Faculties that the Dental Faculties Association of American Universities deemed it inexpedient to consider the matter further at this time.

Dr. Owre was asked to report on the organization of an honorary scholastic society. He outlined the constitution and by-laws of Omega Eta Mu, an honorary society operating at the University of Minnesota. After a general discussion, it was agreed that the matter should be referred to the various faculties upon the deans' return home.

The question of revising the constitution of the Association was taken up, especially the question of membership. The motion presented by Dean Millberry at the Atlanta meeting covering the question was read and discussed. On motion, the matter was referred to the committee appointed at Atlanta to present the constitution in amended form for final action at the next annual meeting; and the committee was authorized to insert the words "well-recognized literary colleges and medical schools" in the amendment proposed at the Atlanta meeting, also to formulate such other amendments as would bring the constitution and by-laws up to date.

The matter of the predental year was taken up at length. It was shown that some colleges offered but three hours' work each semester in the subjects scheduled for the predental year, Washington University being one of these. It was agreed that in cases of transfer of students from one of our colleges to another, work done in one college must have been equivalent to work required in the other, or the transfer should not be made until shortages in courses had been made up.

The meeting adjourned until two o'clock Monday afternoon.

At the Monday afternoon session the president announced that he had been informed that a committee had been appointed by the National Association of Dental Examiners to attend one of our meetings with a view of urging a consolidation of the two associations. It was agreed to receive the committee at four o'clock.

It was reported by Dean Smith that the Dental Department of the Medical College of Virginia contemplated adding a predental year in 1921. On motion, Dr. Turner was appointed to look up the standing of this college at an early date, this to be done with the view of inviting the school to become a member of the Association.

The Dental Educational Council of America then delivered through Drs. Barrett and Midgley, a cordial invitation to the Association to send three delegates to represent it on the Council, announcing that the National Association of Dental Faculties had agreed to reduce its representation to three members. A reply by Tuesday afternoon, October 21, was requested.

Dean Smith moved a further consideration of amendments to the constitution. After a general discussion, the committee was authorized to include in the paragraph covering membership a proviso for honorary members, and for associate members. On motion, the secretary was instructed to extend to Dr. Augustus L. Downing, assistant-commissioner of education of the state of New York, and Dr. Francis W. Shepardson, director of professional education for the state of Illinois, invitations to become honorary members of the Association, without dues and with power to vote.

Dean Breene asked for a consideration of the question of vocational courses for men who had been to war, with reference to laboratory work. A general discussion took place, in which the question of the dental hygienist was also

involved. The substance of the conclusions reached was that short courses furnishing a low grade of instruction should be viewed with disfavor, while those of two years or more offering high grade instruction should be looked upon with favor, if through such courses the public could be better served.

At this time a committee of three from the National Association of Dental Examiners, Drs. T. A. Broadbent, C. B. Miller, and T. S. Sims, appeared and presented the following communication:

*Voted,* That the National Dental Examiners in convention assembled, request the Dental Faculties' Association of American Universities and the National Association of Dental Faculties to effect a consolidation of these two national bodies as requested by the Dental Educational Council of America, upon the advice of the surgeon-general's office of the United States Army. That we are firmly convinced that the best interests of the students in dentistry, the people of this country, and the dental profession will be conserved by this union.

After reading the communication, President Moorehead asked the secretary to outline briefly the consideration that had been given to the matter of consolidation. When this had been done, Dr. Broadbent asked for more details than the secretary had presented. Dean Owre, who was asked to reply, showed clearly that many of the university ideals in education would have to be sacrificed by affiliation with the other dental faculties' associations at this time.

President Moorehead also made an excellent commentary on the matter, dwelling at length upon what the Association had accomplished in the past and would be able to accomplish in the future if it remained independent. Dr. Sims made a spirited reply in which he urged the two bodies to get together in some way if possible.

Drs. Kennerly, Miller, Owre, Sims, and Smith discussed the question further. Before the visiting committee withdrew, Dr. Smith moved a rising vote of thanks, which was extended unanimously.

It was moved that the educational committee keep in touch with all the deans regarding the predental year, that it might go into effect at the time scheduled and accomplish the intended result.

On motion, the meeting adjourned. The secretary was instructed to call the next annual meeting two days previous to the meeting of the American Institute of Dental Teachers to be held in Detroit in January.

In accordance with the action taken by the Association authorizing the committee of three appointed to represent the Association in its relations with the Dental Educational Council of America, to ask for a statement in writing of the Council's concurrence in equal representation on the Council of the two dental faculties' associations, the committee sent the following communication to the Dental Educational Council of America.

New Orleans, Louisiana, October 21, 1919.

*To the Dental Educational Council of America:*

GENTLEMEN: In acknowledging the cordial invitation of the Dental Educational Council of America in which it is proposed that the Dental Faculties' Association of American Universities shall become an organic constituent part of the Dental Educational Council of America with representation by three members in common with a similar representation by the National Association of Dental Faculties, the Dental Faculties' Association of American Universities desires first to give expression to its appreciation of the action contemplated by the Dental Educational Council of America. The Dental Faculties' Association of American Universities feels warranted in the assumption that the Dental Educational Council of America is prompted by a desire for the active co-operation of the Dental Faculties' Association of American Universities in the Council's laudable efforts for the improvement of dental educational standards in America. The Dental Faculties' Association of American Universities has given much thought and sympathetic consideration to the various problems which face the dental educational world today and has already committed itself to a program which has been the result of its careful deliberation.

Were the proposed election of representatives of the Dental Faculties' Association of American Universities to the Council to be consummated under the conditions as they exist at the present time, the Dental Faculties' Association of American Universities would find itself in the position of entering a body, with the organization of which it has had no part and, *ipso facto* of becoming a subscriber to the policies, rules, etc. of the Council when it has had no organic participation in the determination of these policies, rules, etc., to which it would thus subscribe and with which it does not find itself at present in complete agreement.

The Dental Faculties' Association of American Universities feels that it should have its just part in the determination of these matters of vital importance which will affect all dental colleges, including its own membership, and that it should enjoy the same opportunity which the representatives of the various constituent bodies have thus far enjoyed. The Dental Faculties' Association of American Universities desires no special privilege but does desire that its representatives shall have an opportunity for participation in the future action of the Council and for the redetermination of matters affecting colleges upon which the Council has already taken action.

The Dental Faculties' Association of American Universities therefore, suggests that the Dental Education Council of America consent to a revision of its constitution and by-laws in which the representatives of the Dental Faculties' Association of American Universities shall take an active part and that the constitution and by-laws so revised shall only become operative when it has been formally ratified by:

1. The National Dental Association,
2. The National Association of Dental Examiners,
3. The National Association of Dental Faculties,
4. Dental Faculties' Association of American Universities.

The Dental Faculties' Association of American Universities also suggests that the Dental Educational Council of America consent to the adoption of the published standard of the Council on Education of the American Medical Association for the grading of medical schools as the basis of classification of dental colleges, with such modifications as may be necessary to adapt it to dental colleges, and, as soon as it is practicable after its adoption, to the rerating of the dental colleges of the United States.

On October 22 the Council replied, acknowledging receipt of the communication, and requesting the committee to meet with the Council that evening. No reply was made to the suggestions made in the committee's communication. This seemed to indicate that the Council either did not intend to adopt the course of procedure suggested by the committee, or did not understand the communication. Inasmuch as Drs. Turner and Owre had gone home, the secretary, third member of the committee, asked Dr. Smith to go with him to the meeting of the Council, with the idea in mind that no discourtesy be shown the Council, and that eventually good might come from the meeting.

After a courteous reception the committee was asked a number of questions, among them the following:

1. In event the Council does not comply with the suggestions contained in the communication from the Association committee, is it the intention of the Dental Faculties' Association of American Universities to withhold its support from the Council?
2. Is the Council to understand from the communication submitted by the Association committee that the Association does not trust the Council, since it wants a program submitted in writing? etc., etc.
3. Does the Dental Faculties' Association of American Universities think the Council has not shown good faith since the Council invited our Association to send representatives to the Council? etc., etc.

After these and several other questions had been asked, Dean Smith and the secretary gave their personal views regarding the communication and its intent, in substance as follows:

The Dental Faculties' Association of American Universities would accept representation on the Council, if at all, in good faith, with the desire to be influential in bringing about some changes in the standards of the Council which would be for the general good of dentistry.

In attempting to bring about the changes desired, the Association would not withdraw if a first attempt failed, or in subsequent attempts, unless a great principle were at issue which

would affect not only the colleges in our Association, but the universities of which the dental colleges were a part. The representatives tried, with apparent success, to show the Council that they came to work with them, but that they could not consider the sacrifice of principles that great institutions of learning have fostered for decades, for the sake of protection, or for the sake of policing some private enterprise that had incurred no obligation to the public.

The representatives of the Association pointed out that the communication from the committee of the Association was sent with a view of determining whether the Council had overlooked one of the suggestions made by the committee to the Council October 17, with respect to the standards of the American Medical Association for rating medical schools.

After lengthy discussion, the representatives of the Association withdrew, with the understanding that the secretary of the Council would reply to the communication from the committee of the Association upon his return home, also with the understanding that the rating of dental colleges on the basis of the new questionnaires submitted in June would be postponed until the meeting of the Council set for the latter part of January.

While it was understood that relations with the Council were to be continued, there is no question that the communication from the committee of three strained these relations nearly to the breaking point.

The following reply was received from the Dental Educational Council of America early in November:

November 1, 1919.

Dr. Marcus L. Ward, Secretary,
Dental Faculties' Association of American Universities,
Ann Arbor, Michigan.

DEAR DOCTOR WARD: Replying to your letter of October 21, addressed to the Dental Educational Council of America, at New Orleans, Louisiana.

Your letter was read to the Council, and was discussed at length by all the members present. The secretary was instructed to inform you that we are pleased to accept your representation of three members upon the Council, and I will ask your Association to be good enough to appoint the members as soon as possible, and let me have the names.

An adjourned meeting of the Council will be held at the time of the meeting of the American Institute of Dental Teachers, in Detroit, some time in January, 1920. The exact date and place of meeting will be communicated to the members appointed in due time.

The principal subjects to come up for discussion at the adjourned meeting, so far as we know now, will be:

1. Amendments to our articles of organization;
2. Amendments to our minimum Class A requirements;
3. Reclassification of those dental schools who applied for a higher rating and who were inspected during the past year. Action on these schools was deferred in order to give your representatives an opportunity to participate in the classification.

Permit me to express my personal pleasure over the fact that your Association is about to become an active factor in the work of the Dental Educational Council.

Sincerely yours,

HENRY L. BANZHAF, Secretary.

The meeting adjourned.

# TWELFTH ANNUAL MEETING

The twelfth annual meeting of the Dental Faculties' Association of American Universities convened at four p.m., Sunday, January 25, 1920, at Hotel Statler, Detroit, Michigan, with Dean Millberry presiding in the absence of President Moorehead. Membership universities were represented as follows: California, Dean G. S. Millberry; Harvard, Dean Eugene H. Smith; Iowa, Dean F. T. Breene; Michigan, Dean M. L. Ward; Minnesota, Dean Alfred Owre; Nebraska (application pending action), Dean W. C. Davis; Ohio, Dean H. M. Seamans; Pennsylvania, Dean Charles R. Turner; Tufts, Dean William Rice; University of the State of New York, Dr. Augustus S. Downing.

Visitors: Dr. Appleton, of Pennsylvania; Dr. Hoff, of Michigan; Dr. Lischer, of Washington University.

At the presiding officer's suggestion it was voted to take up first the report of the committee on amendments to the constitution.

Dr. Ward reviewed the discussions which had taken place in committee, and was followed by Dr. Owre, who emphasized the necessity, in formulating amendments, of keeping in view the major premise—that dentistry must become ultimately a specialty in medicine. He suggested, for the committee, an amendment encouraging dental schools to establish university connections; and a statement of the Association's ultimate goal, which would involve two years of preliminary education, as in medical colleges.

Dr. Smith said, "We ought to work as rapidly as possible toward requiring two years of preparatory work and two years of medical work. I want to put myself on record in regard to that. If you want to be on a par with medicine, you must have your student in medical school, as a medical student, taking two or three years of medicine, later taking, in the fourth year, dental subjects which will count toward a medical degree. Another year he can specialize."

Dr. Downing remarked, "Wouldn't it cover it all if you took the first sentence and said, 'The object shall be to promote dental education in accord with university ideals?' Your ideal is to get to the same basis as medicine in the next generation,—two years of preliminary college work, a certain amount of medical work preliminary, and then two years of special dentistry. That is the university ideal, but for most of the university schools, even well organized as they are now, it is a long way ahead. I quite agree with you on the necessity for this, but it is a long way ahead. The time has come when no dental school and no medical school can be incorporated unless it has a university connection. That is fundamental to good education."

Dr. Ward asked for further discussion for the guidance of the committee.

It was voted, on motion, that the standing resolutions also be revised by the committee on the constitution.

After lengthy discussion of the advisability of creating an associate membership, it was decided to offer only the two existing types, full and honorary membership.

The executive committee then reported on its examination of the dental school of the University of Nebraska, recommending the admission of this school to membership.

The meeting adjourned until evening.

At the evening session it was voted to adopt the report of the executive committee on the dental school of the University of Nebraska. Dean Davis was notified, and invited to attend the morning session.

On motion, Drs. Owre and Ward were appointed a committee of two to edit the minutes of the last three years.

A committee, Drs. Owre, Turner, and Ward, was appointed to formulate plans for the admission of schools to membership in the Association.

After long and earnest discussion of the question of accepting membership on the Dental Educational Council of America, it was voted unanimously to reply to the Council, that because of the belief of our Association in a university affiliation for dental colleges as the ideal in dental education, it was inadvisable to accept membership in the Dental Educational Council of America.

After considerable discussion of the matter of advanced standing, especially in relation to foreign students, it was voted that such questions be referred to the educational committee.

The report of the educational committee on syllabi was read by Dr. Owre and accepted. The report was discussed at length by Drs. Downing, Turner, and

Ward. Dr. Downing gave his unqualified support to the predental year, with the exception of the subject of shop practice, which he believed should be an elective.

Honorary fraternities were then brought up for discussion. Drs. Millberry and Seamans gave a review of the operations of such organizations in their institutions. It was voted that Dr. Owre represent the Association at the meeting Dean Black of Northwestern University was to hold during the meeting of the American Institute of Dental Teachers, on this question.

The executive committee audited and approved the secretary-treasurer's financial report, and authorized the payment of various bills.

Officers were elected as follows:

*President*—Dr. G. S. Millberry
*Vice-president*—Dr. Alfred Owre
*Secretary-treasurer*—Dr. M. L. Ward
*Executive Committee*—Dr. C. A. Turner, chairman; Dr. F. T. Breene, two years
*Educational Committee*—Dr. Alfred Owre, chairman; Dr. H. M. Seamans, three years.

The meeting adjourned subject to the call of the executive committee.

## SPECIAL MEETING AT DETROIT, JANUARY 28, 1920

A special meeting of the Dental Faculties' Association of American Universities was called by Vice-President Millberry for Wednesday, January 28, in the Hotel Statler, Detroit, Michigan, to consider the advisability of sending a telegram to the Board of Regents of the University of the State of New York urging them to co-operate with the Association in arriving at a uniform predental requirement for the university session beginning October, 1921. Those present at this meeting were Deans Breene, Millberry, Owre, Rice, Seamans, Smith, Turner, and Ward.

Dean Owre and Dean Turner were called upon to outline the essential points in the discussion they had had with Dr. Downing on Tuesday, January 27. It was believed that Dr. Downing would approve of a predental year containing two sciences instead of three, provided the Association could convince the Board of Regents of the University of New York that it was very desirable for them to co-operate with the Association in this manner. After informal discussion, it was decided to send the following telegram.

January 28, 1920.

To the Board of Regents,
University of the State of New York,
Albany, New York.

The Dental Faculties' Association of American Universities assembled wish to express hearty approval of year of college work for entrance to dental college. On account of inherent difficulties in some of the university schools in teaching three sciences in one year, we feel that a better result will be obtained if one science is allowed in the dental curriculum. We also feel that a better result will be obtained if you co-operate with this Association in this matter. We respectfully request that the regents modify their rules to permit the teaching of physics in the dental course, with preparatory work in physics mandatory. Recommend predental year of English, three hours; biology, three hours; chemistry, three hours; electives, six hours. Recommend two years of predental work in 1926.

The meeting adjourned.

# SPECIAL MEETING AT BOSTON, AUGUST 23, 1920

A special meeting of the Dental Faculties' Association of American Universities was called to order August 23, 1920, by Vice-President Owre in the library of Harvard University Dental School, Boston, Massachusetts. Membership universities were represented as follows: Harvard, Dean Eugene H. Smith; Illinois, Dean F. B. Moorehead; Iowa, Dean F. T. Breene; Michigan, Dean M. L. Ward; Minnesota, Dean Alfred Owre; Nebraska, Dean W. C. Davis; Ohio, Dean H. M. Seamans; Pennsylvania, Dean C. R. Turner; Tufts, Dean William Rice; Washington University, Dean J. H. Kennerly.

Visitors: Dr. Terry and Dr. Van Woert, of Columbia University.

On motion, the first matter taken up was the application of Columbia University Dental School for membership in the Association. It was voted that Drs. Downing, Turner, and Ward make the examination of the school and present a formal report. Dr. Van Woert, dean of the school, who was present on the invitation of the executive committee, was asked to outline the basis of his application for membership. His report was followed by a general discussion, the trend of which was that the committee appointed to examine the school should present their findings in form to be sent to the president of Columbia University.

The next subject for consideration was the retirement of professors in dental schools and colleges by the Carnegie Foundation for the Advancement of Teaching. The secretary stated in this connection that the time has been so short since President Burton came to Michigan (the secretary's institution) that the matter had only recently been placed before the Foundation.

Dean Turner stated, "The apparent refusal of the Carnegie Foundation to retire professors in dental schools and colleges is a surprise to me, for while the question has been raised in our own school, it was done by a part time man who became partly incapacitated. The application was denied, and with the denial was coupled the statement that the status of the dental profession is at present uncertain. I then consulted the Provost, who informed me that all members of the teaching staff of the dental schools of Pennsylvania who were on the accepted list of the Carnegie Foundation in 1915 are eligible for retiring allowances."

Dean Kennerly discussed the subject, stating that it was he who was apparently rejected after the chancellor of Washington University had made application for his retirement. "I raised the question before this Association as much for the purpose of interesting the Foundation in rating the schools of the Association as for the purpose of determining the status of the professors in dental schools with respect to retirement."

Dean Ward then read an opinion from President Burton with respect to the eligibility of professors in dental schools and colleges for retirement by the Carnegie Foundation.

On motion by Dean Smith it was voted that a communication be sent to the Carnegie Foundation asking them to investigate the schools of the Association.

Dean Ward remarked, "I believe all that could be done would be to get a survey of dental education rather than a rating."

Dr. Downing stated, "I think a request should be made for the same consideration for teachers in dental colleges as for teachers in colleges of liberal arts, medicine, and other similar departments of universities."

On motion the meeting adjourned until three o'clock in the afternoon.

At the afternoon session considerable time was devoted to a consideration of the relations of the Association with the Dental Educational Council of America. The discussion was preceded by the reading of two letters exchanged between President Burton, of Michigan, and Dr. Midgley, president of the Council. After a general discussion, it was voted, on motion, that the same committee which met with the Council at New Orleans should be appointed to meet with the Council the next day, August 24.

It was voted to defer a consideration of the syllabi until the next meeting of the Association. The educational committee, on motion by Dr. Moorehead, was instructed to publish as soon as ready the syllabus of each subject in bulletin form.

On motion the meeting adjourned subject to the call of the executive committee, with the suggestion that a meeting be arranged either immediately before or immediately after the meeting of the American Institute of Dental Teachers.

# THIRTEENTH ANNUAL MEETING

The thirteenth annual meeting of the Dental Faculties' Association of American Universities was called to order at 10:30 o'clock, January 23, 1921, by President Millberry at the Claypool Hotel, Indianapolis, Indiana. Membership universities were represented as follows: California, Dean G. S. Millberry; Harvard, Dean E. H. Smith; Illinois, Dean F. B. Moorehead; Iowa; Dean F. T. Breene; Michigan, Dean M. L. Ward; Minnesota, Dean Alfred Owre; Nebraska, Dean W. C. Davis; Ohio, Dean H. M. Seamans; Pennsylvania, Dean Charles R. Turner; Tufts, Dean William Rice; Washington University, Dean J. H. Kennerly.

Visitors: Drs. Bunting and Travis, of Michigan; Drs. Nylander and Thomas, of Illinois; Dr. White, of St. Louis.

The minutes of the meetings of January 25 to 26, 1920, and August 23, 1920, were read and approved with a few corrections.

The president then outlined briefly some of the matters which were to come up for discussion at the meeting, including the training of dental teachers and the dental survey. He stated that he had had no response to his invitation to Dr. Pritchett, of the Carnegie Foundation, but he had been informed by Dr. Black that Dr. Pritchett would not be present.

The next order of business was the matter of the five-year curriculum incorporated in the report of the educational committee presented by Dr. Owre. The curriculum was discussed in great detail, the discussion hinging chiefly on what should be included in the predental year.

Dr. Black, president of the American Institute of Dental Teachers, was then invited into the meeting to present for consideration, what he termed "a possible plan of harmonizing the administrative affairs in dental education." Dr. Black outlined the recent tendency in dental education toward university control of dental schools, and suggested the organization among all existing dental schools of an "administrative council" which should provide for "the future direction of dental education for all dental schools by the university schools."

Dr. Black then asked for a committee of five from the Association to meet with five unofficial representatives from the National Association of Dental Faculties to discuss the plan, preliminary to a possible organization of this "administrative council" a year thence. If the Association approved such a move, Dr. Black would have a similar committee appointed from the American Institute of Dental Teachers to work over the matter.

Dr. Black was questioned as to the probable functions of the possible "administrative council" and its probable relations with the Dental Educational

Council of America. He stated that his idea was that the proposed new body should be chiefly a conference body; that its relations with the Dental Educational Council could be determined later. He stressed the necessity of closer relations between dental schools and boards of dental examiners, giving the furthering of such relations as an important function of the proposed new organization.

Dr. Smith pointed out that since the present tendency in dental education was toward university control, the Dental Faculties' Association of American Universities had little to gain by disbanding and joining a body in which it had no assurance of exerting as powerful an influence as it was at present exerting on educational policies.

Dean Black replied that a centralized organization of all schools might be able to make faster progress than the Association could alone.

It was then voted to take the matter under advisement and Dr. Black withdrew.

After further discussion of the five-year curriculum, the meeting adjourned until 2:30 o'clock.

At the afternoon session the discussion again reverted to the five-year curriculum. After much discussion as to whether or not the New York requirement could be enforced the chair appointed a committee, Drs. Moorehead, Rice, and Turner, to draw up a telegram and send to Dr. Downing. The purport of the telegram was to inquire whether or not a man could be admitted conditioned in one of the two sciences provided he had sufficient credit in other subjects to make up the required hours.

Dr. Millberry announced that California had decided not to establish the predental year until after the Carnegie survey of dental education.

The next order of business was the report of the committee on the revision of the constitution. Dr. Turner reported for the committee the recommended changes, and on motion the proposed constitution was referred back to the committee for submission in writing to the members, final action to be taken at the next meeting of the Association.

The report of the committee for the examination of Columbia University Dental School was given in full by Dr. Turner and substantiated by Dr. Ward, the other member of the committee. It was voted that it was inadvisable to admit the school to membership at that time, but that every encouragment should be given toward the establishment of the school on a basis that would admit it to membership; and that the opinion of the Association in this connection be conveyed to Dean Van Woert, of the Columbia University Dental School.

The next order of business was a discussion of the status of dental teachers in relation to their retirement by the Carnegie Foundation. Dr. Turner asked for President Millberry's reaction to a survey of dental education by the Carnegie Foundation.

President Millberry stated, "I think a survey is the most important thing we have before us. The survey would have nothing whatever to do with the retirement of those professors who were in the colleges accepted by the Carnegie Foundation before November 17, 1915. It would give us a better basic understanding of general conditions in dentistry than we have ever had before."

Dr. Moorehead remarked, "I think the report of such an investigation by the Carnegie Foundation should be given the fullest publicity. Give it to the Associated Press and let everybody know the facts about dentistry."

President Millberry said, "I think there is no action we can take at this time unless a resolution were presented offering our voluntary assistance. I under-

stand that Mr. Pritchett has said that if many of the university presidents concur in the matter he has undertaken it will be very helpful."

Dr. Smith moved that such a resolution be framed and a committee of five be appointed to convey the resolution to Mr. Pritchett. The chair appointed the following committee: Deans Moorehead, Owre, Rice, Smith, and Turner.

On motion the meeting adjourned until after dinner.

At the evening session there was some discussion relative to the value of publishing proceedings.

The matter of relations with the Dental Educational Council of America was again brought up for consideration. Dr. Ward outlined briefly the activities of President Burton, of Michigan, and himself in this connection.

Motion was made by Dr. Smith that a committee of three be appointed to meet the Educational Council, with definite instructions as to what would be expected of them. Drs. Owre and Turner voted against this. Dr. Owre was of the opinion that the presidents of the universities represented in the Association should be present at further meetings with the Dental Educational Council, or as many of them as it was possible to have present. The chair appointed Drs. Owre, Smith, and Ward to formulate a draft of our views for submission to the Council, to be submitted first to the Association for approval or disapproval.

On motion, two members, Drs. Breene and Seamans, were added to the above committee to meet with Dr. Black's committee of five from the National Association of Dental Faculties.

The matter of admission of students to advanced standing was discussed, with especial reference to foreign students applying for admission, including those who have never studied dentistry, those who have the L.D.S., and graduates of Japanese schools.

President Millberry announced that Dr. Turner was to go to the meeting of the Fédération Dentaire Internationale in Madrid as a representative from the University of Pennsylvania, and suggested that he also be made a delegate of the Association. It was voted that Dr. Turner be furnished with the proper credentials, and that he be asked to report his findings on the status of foreign dental schools applying for admission to schools in the Association.

The matter of giving publicity to the Association activities was discussed. On motion, Drs. Moorehead and Turner were appointed to write an article for publication in one of the leading dental journals and in the section on stomatology in the *Journal of the American Medical Association.* (See Appendix, p. 117.)

President Millberry described the manner of training dental assistants as it is done in California.

Election of officers resulted as follows:

*President*—Dr. Alfred Owre
*Vice-president*—Dr. William Rice
*Secretary-treasurer*—Dr. M. L. Ward
*Executive Committee*—Dr. F. B. Moorehead, for three years
*Educational Committee*—Dr. Alfred Owre, chairman; Dr. C. A. Turner, for three years.

The meeting adjourned to meet Monday evening, January 24.

# SPECIAL MEETING AT INDIANAPOLIS, JANUARY 24, 1921

A special meeting was called to order by President Millberry, Monday evening, January 24, at the Claypool Hotel, Indianapolis, for the purpose of considering some matters not finished at the regular meeting.

The first order of business was a verbal report of the committee appointed to outline the conditions under which we should meet with the Dental Educational Council of America. On motion, the Association voted to send the same committee (Drs. Owre, Turner, and Ward) who had formerly represented the Association before the Council, in event the conditions requested by this Association were met. On motion the above named committee was authorized to submit the following statement to the Council:

The Dental Faculties' Association of American Universities has reviewed the correspondence that has taken place between President M. L. Burton and Dr. A. L. Midgley relative to affiliation of the Dental Faculties' Association of American Universities with the Dental Educational Council of America, and interprets this correspondence to mean that it is desirable at this time that a committee from each of these two bodies should meet for the purpose of discussing the details of the proposed affiliation. With this in view, the Dental Faculties' Association of American Universities has appointed the following committee, Marcus L. Ward, Charles R. Turner, Alfred Owre, to confer with a similar committee to be appointed by the Dental Educational Council.

The Dental Faculties' Association of American Universities has instructed the above named committee to ask the Dental Educational Council if it will consent to a revision of its constitution and by-laws and allow the Dental Faculties' Association of American Universities to take an active part in such revision.

The committee is also instructed to ask the Dental Educational Council to commit itself favorably to the enforcement in 1922 of high school graduation and one year of college work as a prerequisite to an A rating.

The committee is also instructed to ask the Dental Educational Council to commit itself favorably to the revision of its standard of rating colleges and a rerating, and participation in such revision and rerating by representatives of the Dental Faculties' Association of American Universities.

The committee is also instructed to ask the Dental Educational Council to commit itself that any form of reorganization shall not become final until all the associations directly concerned therewith shall have concurred in the plan of reorganization.

Dr. Turner reported that the telegram he was authorized to send to Dr. Downing had been sent, and the report had been sent to the secretary of the Association. The telegram in reply read as follows:

January 24, 1921.

Can't agree suggested modification predental year. Present requirement not too severe. Prospective students easily get English, biology, chemistry, and even physics if they have not had the last subject in high school. Six semester hours proposed electives satisfactory. Please do nothing to longer make impossible registration university schools. Kindest regards everybody. AUGUST S. DOWNING.

There was a unanimous vote to have Dr. Turner take up the matter presented by telegram with Dr. Downing and further urge its adoption.

The meeting adjourned.

# FOURTEENTH ANNUAL MEETING

The fourteenth annual meeting of the Dental Faculties' Association of American Universities was called to order January 22, 1922, by the president, Dr. Owre, at the Hotel Windsor, Montreal, Canada. Membership universities were represented as follows: California, Dean G. S. Millberry; Columbia (membership application pending) Dean F. T. Van Woert; Harvard, Dean E. H. Smith; Iowa, Dean F. T. Breene; Michigan, Dean M. L. Ward; Minnesota.

Dean Alfred Owre; Nebraska, Dean W. C. Davis; Ohio, Dean H. M. Seamans; Pennsylvania, Dean C. R. Turner; University of the State of New York, Dr. A. S. Downing; Tufts, Dean William Rice; Washington University, Dr. Brady.

Visitors: Drs. Mauk and Hanford, of California; Drs. Rickert and Travis, of Michigan; Dr. Grubb, of Nebraska; Dr. Hebble, of Ohio; Drs. Johnston and Proctor, of Tufts.

The minutes of the last regular and special meetings were read and approved.

President Owre gave a brief résumé of the meeting of the committee to represent the Association with representatives of the Carnegie Foundation for the Advancement of Teaching, Drs. Pritchett and Gies. He stated that the committee found Drs. Pritchett and Gies interested in the activities of the Association; and that the committee from the Association had assured Drs. Pritchett and Gies of the support of this Association in the contemplated survey of dental education. Dr. Smith's official report of this meeting follows:

As chairman of the committee appointed by the Dental Faculties' Association of American Universities to wait upon Dr. Pritchett of the Carnegie Foundation for the purpose of interesting the Foundation in a general survey of dental education, I beg to report: first, that the committee appointed was made up of the following deans: Eugene H. Smith, chairman; William Rice, Alfred Owre, Marcus L. Ward, F. B. Moorehead.

The following members of the committee, Deans Smith, Owre, and Rice, met Professor William J. Gies in New York on May 7, 1921, who had made an appointment with Dr. Pritchett to receive the committee. We met Dr. Pritchett at his home in New York City and spent a couple of hours with him, setting forth the attitude of our Association regarding the need of a survey of dental education by the Foundation. We discussed with him the present unsatisfactory status of the dental profession and the hopes for its future held by the members of the Dental Faculties' Association of American Universities.

The various phases and conditions pertaining to the profession were freely discussed, all of the members taking active part. Professor Gies' assistance in this conference was invaluable.

At the adjournment of this conference Dr. Pritchett stated to the committee that this survey would be made.

Respectfully submitted,

EUGENE H. SMITH, *Chairman.*

Dean Seamans then presented a verbal report of the meeting of the committee from the Association appointed to meet with committees from the National Association of Dental Faculties' and the American Institute of Dental Teachers for the purpose of considering the proposed administrative council in the American Institute of Teachers. He detailed the discussion which had taken place at the meeting, and stated that all of Dr. Black's proposals had been approved and recommended to the American Institute of Dental Teachers for adoption, with Drs. Owre and Ward casting several dissenting votes.

Drs. Owre and Ward then explained why they had dissented. First, they had agreed previous to the meeting that the creation of any more executive machinery before the end of the Carnegie survey of dental education was likely to be misinterpreted and be considered inconsistent with a real study of the question. They pointed out that a survey of dentistry by the Carnegie Foundation implied a study of the problem of dental education and a correction of any defects discovered. Second, Dr. Black's proposal carried with it recommendations for changes in the constitution and by-laws of the American Institute of Dental Teachers to provide for the formation of rules and standards to govern dental colleges which seemed to conflict with (1) the rules of the Dental Educational Council of America, (2) sound university procedure, (3) the present policies of the American Institute of Dental Teachers not to establish mandates.

After discussion it was voted to lay the matter on the table with the suggestion that it be not removed from the table until an official notice concerning it be sent from the American Institute of Dental Teachers.

After a further discussion of the Carnegie Survey the meeting adjourned until three o'clock.

At the afternoon session the application for membership of the Columbia University Dental School was taken up. The secretary presented the report on the school read at the last meeting of the Association, with supplementary letters from Dr. Dunning of Columbia to the Association, and from Dr. Van Woert to Dr. Dunning. The letters showed to the satisfaction of the members that the president of Columbia University had now directed a separate budget for the Dental School, and had discontinued it as part of the extension service of the university. Columbia University Dental School was unanimously elected to membership, and Dr. Van Woert invited to attend the meeting.

The secretary was then requested to report on the inspection of Western Reserve University Dental School made by himself and Dr. Seamans. Following the submission of a written report, the school was unanimously elected to membership.

Dr. Moorehead rose to the question of personal privilege to present his views regarding the controversy between the University of Virginia at Charlottesville and the Medical College of Virginia at Richmond. He stated that there was a question under discussion in Virginia, which had been carried to the state legislature, relative to the wisdom of the establishment of a school of dentistry in connection with the University of Virginia, since there was a school at Richmond now receiving state aid. He brought out that the nature of this Association made it incumbent upon it to support the university at Charlottesville in its effort to establish a dental school in connection with its medical school, where the dental students might be under the influence of campus life, and free from many of the objections to dental schools not so associated.

He pointed out further that the impression prevailed that adverse criticism to the establishment of the school at the University of Virginia had come from the secretary of the Association, and that the Association might contribute something toward the furtherance of dental education if it took action to counteract this wrong impression. Dean Turner discussed the situation at Virginia from his knowledge as a former member of the faculty of the medical school at Richmond, and concurred in the main with what had been said by Dr. Moorehead. President Owre asked Dr. Moorehead if it was his desire that the Association send an official recommendation incorporating his ideas to the dean of the medical school at the university at Charlottesville. On Dr. Moorehead's reply in the affirmative, it was voted to request Dr. Moorehead to send a telegram at the Association's expense.

The next matter of business was a consideration of the revision of the constitution and by-laws. On motion each article of the revised constitution and by-laws as printed and submitted to members during the year was read and voted upon. The constitution and by-laws as submitted during the year were thus adopted. (See Appendix, p. 124.)

It was voted to extend the privilege of the floor to Dr. William J. Gies of the Carnegie Foundation, who had just entered the meeting. Dr. Gies responded briefly with a general statement to the effect that he was not in a position at that time to make statements regarding the work of the Foundation in dental education; that he preferred to hear the discussions, and perhaps later, in conference with a committee representing the Association, add one or two general opinions which he reserved the right to revise as the study of dental education progressed.

The revision of the *Gray Book* of the Dental Educational Council of America was presented, with a view to securing instructions for the committee representing the Association as to the course it should pursue when it should meet with the Council. After a number of questions, most of them raised at previous meetings, had been discussed, the committee was instructed especially to request the adoption of a point system for the rating of dental schools.

The meeting adjourned until eight o'clock.

At the evening session, on the statement of the executive committe that they had audited the secretary-treasurer's reports and found them correct, it was voted to receive them and place them on file.

The next item of business was the election of representatives to the Dental Educational Council of America.

NOTE.—At the Milwaukee meeting in August, 1921, of the National Dental Association, Dr. Gies had presented, for the Carnegie Foundation, an invitation to both the Council and the Association to co-operate with the Carnegie Foundation in its study of dental education. After various conferences, it was finally agreed by members of the two bodies concerned who were on the ground, that the Council should be enlarged for this purpose, and the Association duly represented. The Council voted unanimously to accede to all requests in the official letter of the secretary of the Association to the Council dated January 24, 1921 (see minutes of Indianapolis meeting, special session, p. 104) except to specify 1922-23 as the particular academic year to mark the enforcement of a "pre-dental year" as a prerequisite for the Class A rating. The Council desired formal designation of the particular academic year that should mark the beginning of such enforcement to be left for future decision by the enlarged Council, the principle involved in the requirement of the predental year having been accepted.

The following men were nominated: Drs. Turner, Waite, and Ward. On motion the secretary was directed to prepare a unanimous ballot for these men to represent the Association on the Council. Dr. Waite's election to this committee was made contingent upon the acceptance of membership in the Association by Western Reserve University. Dr. Owre was added to this committee by the executive committee when the Council was enlarged to permit a representation of four from the Association.

Considerable time was devoted to a discussion of the contents of the predental year; the only action taken was on a motion by Dr. Downing, that the same subjects be required for the next year as had been required the past year.

Dr. Turner then presented a verbal report on the status of foreign dental education. The matter was discussed especially as it related to the acceptance of men holding the L.D.S. from England and the B.S. from Australia. No action was taken, the general feeling being that each case should be decided upon its merits.

A short discussion followed on the sale of bogus diplomas by a so-called oriental university at Washington and by certain other individuals and institutions engaged in this illegal practice.

On motion, the Association recommended that the education committee again take up the matter of preparing syllabi for the dental curriculum.

Dr. Waite then discussed the question of certain schools and colleges in this country giving instruction in the first two years of dentistry, as the first two years in medicine is now given.

Election of officers resulted as follows:

*President*—Dr. Alfred Owre
*Vice-president*—Dr. William Rice
*Secretary-treasurer*—Dr. M. L. Ward
*Executive Committee*—Dr. F. T. Breene, two years
*Educational Committee*—Dr. Alfred Owre, chairman; Dr. Eugene H. Smith, three years.

The meeting adjourned.

# FIFTEENTH ANNUAL MEETING

The fifteenth annual meeting of the Dental Faculties' Association of American Universities was called to order January 19, 1923, by the president, Dr. Owre, in the College of Dentistry of the University of Iowa, Iowa City, Iowa. Membership universities were represented as follows: California, Professors F. V. Simonton; Illinois, Dean F. B. Moorehead; Iowa, Dean F. T. Breene; Michigan, Dean M. L. Ward; Minnesota, Dean Alfred Owre; Nebraska, Dean G. A. Grubb; Ohio, Dean H. M. Seamans; Pennsylvania, Dean Charles R. Turner; University of the State of New York, Dr. Augustus S. Downing; Tufts, Dean William Rice; Washington University, Dean W. N. Bartlett.

Visitors: Drs. Gwinn and Johnston, of California; Drs. Gies and Waugh, of Columbia; Dr. N. S. Thomas, of Illinois; Dr. Volland, of Iowa; Drs. Bottenhorn, Cottrell, and Wiltberger, of Ohio; Dr. Brady, of Washington University; Dr. F. C. Waite, of Western Reserve.

The executive committee, having read the minutes of the previous meeting, advised that the reading of them be waived; it was so moved, with the understanding that this action carry with it approval.

In pursuance of a policy formulated during the year by the executive committee, after informal conference with various members, the annual meeting was held in advance of the annual meeting of the American Institute of Dental Teachers, at a membership university, in order to take advantage of university facilities for presenting a program adapted to the needs of university dental schools. The executive committee had arranged for the following program.

PROGRAM OF ANNUAL MEETING OF THE
DENTAL FACULTIES' ASSOCIATION OF AMERICAN UNIVERSITIES
IOWA CITY, IOWA, JANUARY 19 AND 20, 1923

Friday, January 19, Room 109, College of Dentistry

Order of Business

9:00 a.m. Filing of Credentials and Payment of Fees
Roll Call of Members
Reading of Minutes of Previous Meeting
Address of President
Alfred Owre
Dean, College of Dentistry
University of Minnesota

Discussion

10:30 a.m. Address, University Administration
President Walter A. Jessup
University of Iowa

Discussion

1:30 p.m. Inspection of the College of Dentistry

3:00 p.m. Report of Secretary, Treasurer
Report of Committees

4:00 p.m. Selection of Students for Technical Courses
Carl E. Seashore,
Dean, Graduate College
University of Iowa

Discussion

7:30 p.m. Anatomical Research Methods and Findings in Relation to the Temporomandibular Articulation
Dr. Henry J. Prentiss
Head, Department of Anatomy
University of Iowa

Discussion

Business Session

Saturday, January 20, Room 109, College of Dentistry

9:00 a.m. Special Orders

10:00 a.m. Fundamental Considerations in the Selection of Instructors
William F. Russell
Dean, College of Education
University of Iowa

Discussion

11:00 a.m. A Plan for Conference Instruction in Orthodontia
Charles R. Turner
Dean, The Thomas W. Evans Museum and
Dental Institute School of Dentistry
University of Pennsylvania

Discussion

2:00 p.m. Unfinished Business
New Business
Election and Installation of Officers
Final Reading of Minutes
Adjournment

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The president read for his address a paper dealing with the future trend of dental education.

This, the fifteenth annual meeting of the Dental Faculties' Association of American Universities, is in many respects the most significant. We find the three principal goals toward which we have struggled for so long almost attained. The course has been lengthened from three years, when we organized our Association, to five years in 1920. A university affiliation has come to be regarded as the *sine qua non* of a first-class dental school. Best of all, the survey of dental education is an accomplished fact.

With our past aims so nearly reached and the maintenance of the standards we have been advocating assured, we may well look ahead into the future. This is the psychological moment for such a forward glance. The Carnegie report will bring to the attention of the public and its representatives, the legislatures, and best of all, to the universities, the real status of dentistry. A further consideration of our calling is bound to follow.

As you are well aware, our original status was that of a specialty in medicine. We are now, I believe, on the road back to the parental rooftree. Educators and scientific thinkers in every quarter are challenging our rights to practice our vital calling without the biological training required of specialists in other regions of the body. The best scientific thought is agreed that dentistry is a field of medicine. Simultaneously criticism is levelled from all sides at the present length and content of the medical curriculum. The course is regarded in high quarters as impractically long. At the same time, dental students in the best schools have about the same preliminary training as medical students. Does not this situation present an educational opportunity to the universities? Now, as always, future progress lies with them. They will, I believe, work over this problem until a solution is reached which will give the people an adequate number of well-trained medical specialists in every field without economic waste. Under present stringent, economic conditions concern for the welfare of mankind doubly compels us to furnish the maximum of equipment in the minimum of time. With regard to our specialty, we can, by pushing dentistry up a notch and paring medicine down to the essentials, bring them to a common ground. For several months I have worked over this possibility; I have discussed it with medical and dental educators, and with practitioners in both camps. We have come to the following conclusions:

First, we must economize rigidly all along the line. We must begin with the high school. Preparation gained there by the prospective professional student will require considerable revision. The high school should be asked to prepare him adequately in English composition, mathematics up to and including trigonometry, and a beginning language. This done, these subjects should be off the slate, to trouble us no more. Further language study may be an elective in the preclinical years, but it should not be required. Translations should be encouraged and translators should be made readily available; to insist on his having a reading knowledge of a foreign language is an extravagance of the student's time. The high school should not attempt to teach the prospective medical student such fundamental sciences as chemistry, biology, and physics. Such high school courses are but smatterings at best and are invariably repeated at the university. The universities have usually much better laboratory facilities and equipment; their instructors are highly trained and experienced; and the more mature student is better able to grasp scientific principles and pursue scientific methods.

It now takes seven years to produce a general practitioner—four years of preclinical work, two years' clinical work, and in many schools a seventh year's compulsory interneship. Any specialization must come after that. We may well scrutinize a scheme of education which involved eight or nine years of a man's life after the completion of high school. If we

find waste, or duplication, or misplaced emphasis, there is an obligation on our part to correct the fault. In this connection let me quote from the report of the Council on Medical Education and Hospitals of the American Medical Association to the House of Delegates (pp. 15-18):

"The present medical curriculum was built up at a time when clinical teachers had no confidence in the basic training of the student, and they felt impelled to repeat fundamentals and reorient students in each so-called 'course.' In most medical schools even today the medical student is taught the general phenomena of inflammation by from three to fifteen teachers in different subjects. Repetition of elementary work, duplication and lack of co-ordination, too much informational material and rigid legal hour requirements, have made the present medical school a wonderfully intricate mechanism of hours, schedules, lectures, courses, that has become scrambled, mixed up, unwieldy and inefficient. Why not scramble it entirely, look carefully over the mass, pick out the fundamentals and get a fresh start? The good preliminary training now required of medical students has eliminated many of the unfit. They now have a training in the basic sciences, and are able to do an increasing amount of independent and thoughtful work."

In regard to the medical curriculum proper, President Pritchett in his report says:

"The reform of the curriculum of the undergraduate medical school is one of the most pressing questions of the present day medical teaching, and its accomplishment will have a larger bearing on the progress of the profession than any other single action."

Present day education comes too high for the public to excuse any inefficiency. As Huxley remarked about culture, "Be useful to me or away with you."

Let us assume, then, that in time the high schools will take over the responsibility for the necessary preparation in mathematics, English composition, and a beginning language. The universities may then undertake the scientific preparation of the future doctor. It goes without saying that there should be taught, in the various fundamental sciences, only what has a direct and clearly perceived bearing on the student's future work. As Sir James MacKenzie points out, tho in reference to medical men, it is natural that our specialists should insist upon presenting whatever special knowledge they have accumulated. But the load is becoming too great, and there is danger, in some institutions, that a few specialties will absorb the whole curriculum. Dr. W. J. Mayo stated recently, "we cannot compel our students to act as audience." Students cannot spend much time listening to men who hold their specialties so close to their eyes that they cannot see beyond. I quote again from the above mentioned report (p. 16):

"The specialties, taught as they are at present, belong outside the undergraduate medical curriculum. They can be included in the medical curriculum when they are taught by men who can range over the body instead of having their vision limited largely to body orifices. It would not be so absurd to spend a whole schedule hour of an undergraduate medical class on the technic of an operation on the inner ear, if other more important things to the student—perhaps not to the professor—were not so pressing. It must not be forgotten, however, that any complete observation and any piece of highly skilled work has its value in instruction.

"Instead of elaborating new schedules, it is suggested that the number of hours allotted to the specialties be reduced or, better yet, that all specialties be promoted to the graduate school but continue to join in the teaching of the main clinical branches by presenting cases, giving lectures, or, better still, by demonstrating their special field of work on patients already familiar to the students."

A rearrangement correcting the present tendency involves no radical change, but a shift in emphasis, with a careful scaling down of knowledge specially applied. As I will attempt to show later with actual figures, the preclinical years can be reduced through relegation of some preparatory subjects to the high school and reorganization of the content and method of the scientific courses, to three academic years instead of four.

This brings us to the clinical years. At no other point in the present curriculum is a reorganization based on pedagogically sound principles so badly needed. It may involve radical departures from current practice. In some of the leading medical schools, students now spend five to six hundred hours making occasional visits to various hospitals. There are over nine hundred elective hours in the two clinical years. It is usually urged that the students devote about six hundred of these to two quarters of student interneship. The scattered hospital visits should be eliminated; actual residence in hospitals, where daily contact with disease is afforded close at hand, should be required to begin at least in the fifth, or second clinical year to continue for four quarters. To make this possible I should combine the five or six hundred hours of hospital visits, the two quarters of student interneship usually urged upon the student, and the remaining elective hours. This hospital work with the nine hundred hours of lectures and recitations, demonstrations, and dispensary work would constitute the two clinical years. During these years we should teach the minimum knowledge of *all* specialties that is necessary to the general practitioner. This would, of course, include the oral region, which has no logical right whatever to isolate itself from the rest of the body as if it were

made up, to quote Dr. Hunter, of "ivory pegs in stone sockets." Modern research has established conclusively that the mouth is the center of numerous infections. We can never go back to the old "jeweler" days.

This proposed reorganization may sound almost impossibly radical. It has the sanction on many points, however, of the committee whose report I have several times quoted (p. 19):

"The practical remedy for this situation (failures to link up the teaching of anatomy and pathology with actual observation and contact) is to reduce the amount of theoretical instruction in the first two years, and to change the character of the teaching so as to make clear the fundamental facts, while at the same time starting the clinical instruction at the very beginning of the course. The student should learn his anatomy and his pathology through his clinical training, not reverse the process. No other reform in medical teaching approaches in importance this one."

Now let me come down to brass tacks. I have made an hour analysis of the present medical curriculum with a view to incorporating dentistry in a reorganized and shortened course. The figures are these:

## PRESENT CURRICULUM

### Four Preclinical Years

| Subject | Hours |
|---|---|
| Zoology | 231 |
| Chemistry (high school 66) Gen. 192; Qual. 88, Org. 198, Quant. 99 | 643 |
| English | 99 |
| Physics | 198 |
| Language | 209 |
| Anatomy, Gross, 330, Hist. 165, Em. 99; Neurology 110 | 704 |
| Bacteriology, Gen. 99; Special 77 | 176 |
| Phys. & Phys. Chem.: Phys. 242. Phys. Chem. 198 | 440 |
| Pathology, Gen. and Special, 330, Autopsy 22 | 352 |
| Preventive Medicine and Public Health | 33 |
| Pharmacology | 187 |
| | 3272 |

### Two Clinical Years

*Lectures, Recitations, and Demonstrations*

| | Hours at Colleges and Dispensaries | Hours at Hospital | Total Hours |
|---|---|---|---|
| Medicine | 373 | 319 | 692 |
| Surgery | 244 | 137 | 381 |
| Obstetrics | 154 | 68 | 222 |
| Pediatrics | 100 | 68 | 168 |
| Ophthalmology and Oto-Laryngology | 101 | 15 | 116 |
| Roentgenology | ... | ... | 11 |
| Electives* | ... | ... | 924 |
| Total | 972 | 607 | 2514 |

One interne year.†

## PROPOSED CURRICULUM

| First Quarter | | | Second Quarter | | | Third Quarter | | |
|---|---|---|---|---|---|---|---|---|
| | Hrs. | Crs. | | Hrs. | Crs. | | Hrs. | Crs. |
| | | | *First Year* | | | | | |
| General Chem. | 110 | 6 | General Chem. | 110 | 6 | Qual. Chem. | 77 | 4 |
| Physics | 99 | 6 | Physics | 99 | 6 | Biology | 110 | 6 |
| Elective‡ | | 3 | Elective‡ | | 3 | Elective‡ | | 5 |
| | | | *Second Year* | | | | | |
| Organic Chem. | 88 | 4 | Organic Chem. | 88 | 4 | Quant. Chem. | 77 | 4 |
| Biology | 110 | 6 | Gross Anatomy | 132 | 6 | Gross Anatomy | 132 | 6 |
| General Bact. | 99 | 5 | Elective‡ | | 5 | Elective‡ | | 5 |
| | | | *Third Year* | | | | | |
| Embryology | 66 | 4 | Physiology | 110 | 6 | Physiology | 110 | 6 |
| Histology | 143 | 8 | Phys. Chem. | 48 | 3 | Phys. Chem. | 48 | 3 |
| Neurology | 48 | 3 | Pathology | 110 | 6 | Pathology | 110 | 6 |

* Student interneship (660 hours)=two quarters.

† Required by some schools.

‡ English, foreign languages, economics, sociology, technical drawing, shop practice, psychology, ethics, philosophy, special anatomy.

*Fourth Year*

Didactic, Demonstration, and Dispensary

| | Hours |
|---|---|
| Medicine, Pediatrics | 473 |
| Surgery | 244 |
| Obstetrics and Gynecology | 154 |
| Ophthalmology and Oto-Laryngology | 99 |
| Stomatology | 99 |
| Preventive Medicine and Public Health | 66 |
| Pharmacology | 132 |
| Total | 1267 |

*Fifth Year*

| | Hours |
|---|---|
| Medical service | 2 quarters |
| Specialties | 1 quarter |
| Elective§ | 1 quarter |

Further study of general medicine or of a specialty.

*Sixth Year*

Elective..... 4 quarters (hospital residence)

## SUMMARY OF THE PROPOSED CURRICULUM

High school should furnish mathematics necessary to the understanding of physics, English, and as much language as possible.

### THREE PRECLINICAL YEARS

| | Hours | Credits |
|---|---|---|
| Zoology | 220 | 12 |
| Chemistry | 550 | 28 |
| Physics | 198 | 12 |
| Anatomy | 521 | 27 |
| General Bacteriology | 99 | 5 |
| Physiology | 220 | 12 |
| Physical Chemistry | 96 | 6 |
| Pathology | 220 | 12 |
| Electives | 241 to 363 | 21 |
| | 2437 | 135 |

The following is to show briefly how the specialty of dentistry could be worked in. The proposed curriculum carries the following electives:

| | Hours |
|---|---|
| Preclinical years | 363 |
| Clinical years | 528 |
| Sixth year | 2112 |
| Total | 3003 |

After eliminating from the present dental curriculum the subjects otherwise covered in the revised curriculum as I have outlined it, we have left a requirement of approximately 3000 hours. You will observe that this tallies with the number of elective hours. It is entirely possible to work the requirement for dentistry into the above groups of elective hours.

If we were to make the common course for all members of the healing art conform to this outline, it would involve, naturally, a readjustment of degrees. This, with many other details, would need further working over. It might be possible to bestow the degree of bachelor of science in medicine on the completion of the five-year course. The sixth year should be spent in a study of a chosen specialty, or in further study of general medicine. The graduate might then take the degree of doctor of medicine in his specialty or in general medicine. It should connote in any event the field in which the new-fledged practitioner might undertake to practice.

§ This year may include the present courses in special bacteriology, special pathology, and special anatomy.

All this implies a second radical change in our scheme of medical education. Simultaneously with this group of highly trained specialists, there should be trained a much larger number of skilled technicians in every field, who should work only under the direction of the medically trained practitioner. It is entirely possible to train such men in, at the most, two years. They can relieve the various specialists of a vast deal of work that should not consume the latter's valuable time. In dentistry, for example, they could take over all mechanical phases of operative dentistry, prosthetics, and crown and bridge work. Clearly with the co-operation of trained technicians the specialist could function much more broadly than under the present blundering system, which puts all types, abstract and concrete, scientific and mechanical, through the same mill. Obviously, too, such a program involves the most careful selection of candidates, based on their native fitness for the work they desire to do.

To judge by the encouragement I have received from many earnest men in the medical profession, this scheme is by no means impossible of accomplishment. Our hope, let me repeat, lies with the growing interest of the universities, not only in medical education but in all professional education, from the standpoint of the ultimate good of the people. The universities alone can influence high schools to arrange a preparatory course for future professional students that will really prepare; they, only, can make the "job analysis"—now under way in at least one institution—of all professions, to determine what educational program for technical and professional men will return them to society in the shortest possible time adequately prepared for their life work. Dentistry is bound to share in this reorganization for the compelling reasons I have mentioned—its position in the limelight, its inadequacy to fulfill demands made upon it as a vital medical specialty, and the growing dissatisfaction with the present scheme of medical education. We, as university schools, must bend our efforts toward bringing this about without unnecessary loss of time; for, as Oliver Wendell Holmes remarks, "the state of medicine is an index of the civilization of an age and country—one of the best, perhaps, by which it can be judged."

It is possible that this may be our chief work for the future. Our existence as an executive body may well be over. We are to discuss at a later session the advisability of merging with the American Institute of Dental Teachers, the Canadian Faculties Association, the National Association of Dental Faculties, the Dental Faculties' Association of American Universities into a general body, the American Association of Dental Schools.

If this comes about—if this address is both a hail and a farewell—let us devote our utmost energies in the future toward the furtherance of a greater medico-dental educational program.

Discussion of this paper was opened by Dean Moorehead.

It was then announced that President Jessup would be unable to give his address on "University Administration." On motion it was voted to discontinue discussion of the president's address to listen to Dean Seashore, of the Graduate College, University of Iowa, speak on the "Selection of Students for Technical Courses."

A lengthy discussion followed on the desirability of intelligence (placement) tests for students wishing to matriculate in dental schools. The gist of it was that such tests are of great value in eliminating the unfit. Dr. Seashore especially emphasized from his experience the reliability of findings as to the least well-qualified ten per cent of the freshman group.

The meeting adjourned until three o'clock.

At the afternoon session the president asked the vice-president to take the chair, and reviewed his address of the morning, continuing to discuss the necessity for a "job analysis" of dental education. The discussion was continued by Drs. Downing, Moorehead, Turner, and Ward.

The meeting adjourned until ten o'clock the next morning.

The evening was spent in attendance at a dinner given by President Jessup until eight o'clock, at which hour Dr. Henry J. Prentiss, head of the Department of Anatomy, University of Iowa, gave an address on "Anatomical Research Methods and Findings in Relation to the Temperomandibular Articulation."

Saturday morning, January 20, the meeting was called to order at ten o'clock.

Dr. Charles R. Turner gave an address on "A Plan for Conference Instruction in Orthodontia." This was followed by an address by Dean William F.

Russell of the College of Education, University of Iowa, on "Fundamental Considerations in Selection of Instructors."

A discussion of this address was carried on by Drs. Downing, Waite, and Ward.

The president then called for unfinished business. After a general consideration of the affairs of the Association, a proposal from Dr. William J. Gies, head of the Carnegie Survey of Dental Education, relative to a consolidation of this Association, the National Association of Dental Faculties, the American Institute of Dental Teachers, and the Canadian Dental Faculties' Association into one body to be known as the American Association of Dental Schools, was taken up. Dr. Gies was asked to present orally the proposal which he had previously submitted in writing. Dr. Gies' proposal follows:

October 11, 1922.

Secretaries of the
Canadian Association of Dental Faculties,
American Institute of Dental Teachers,
National Association of Dental Faculties,
Dental Faculties' Association of American Universities.

GENTLEMEN: I suggest that the Canadian Association of Dental Faculties, the American Institute of Dental Teachers, the National Association of Dental Faculties, and the Dental Faculties' Association of American Universities, *unite to form a new organization* that might be called the "American Association of Dental Schools."

The proposed new general organization could be effectively established (a) for the purpose of presenting favorable opportunity for annual conferences on administrative and teaching problems in dental education in North America, and (b) on a plan that would give to its actions *advisory, rather than mandatory, effect.*

If this proposal merits approval, it might be given special attention at the meeting of the American Institute of Dental Teachers, in Omaha, next January. Perhaps committees could be conveniently appointed to facilitate consideration of this matter at that time.

I am making this suggestion entirely on my own personal initiative. The proposal has not been prompted by anyone, nor by any of the organizations affected, but has arisen independently from my observations during the past year and a half, as a special student of dental education in Canada and the United States.

In order to initiate informal discussion of this matter, by the faculties concerned, I am forwarding a copy of this letter to the dean of each of the schools of dentistry in North America.

I hope that your Association will be disposed to give this suggestion attention at an early opportunity.

Yours sincerely,

WILLIAM J. GIES.

There was a general discussion of Dr. Gies' proposal, a letter was read from Dean Smith of Harvard in which he expressed himself as opposed to such an amalgamation; after further discussion it was voted that a committee of five be appointed to confer with a similar representation from each of the other three bodies with a view to bringing about the proposed consolidation.

It was agreed that, while no one doubted that consolidation would take place as proposed, the committee, since it would be necessary for the Association to meet once more to close up its affairs, should report back to the Association for final action.

Dr. Owre then asked for suggestions to guide the committee in its work.

Dr. Downing asked the chair for a discussion of the status of the syllabi and pointed out what he felt to be the pressing need of a syllabus of each subject in the dental curriculum. In the discussion which followed it was brought out that while syllabi would be helpful as a guide to examining boards, the chaotic and fluid condition of dental education made the compiling of such outlines of any enduring value almost impossible. It was felt by the majority that until certain vexed questions in dental education should resolve themselves, and the form future development was to take should be settled, it was impracticable to continue work on the syllabi.

On motion a telegram was sent to Dean Smith, of Harvard, wishing him rapid recovery and expressing regret at his absence.

The secretary-treasurer's financial statement was read and accepted.

Dr. Downing then proposed that in view of the fact that the next year was the last of the existence of the Association, the present officers be re-elected. Dr. Owre asked the vice-president to take the chair and stated that he should like very much to be relieved. Calls for the ballot, however, showed that it was desired that the present officers remain for the following year.

The meeting adjourned.

## SPECIAL MEETING HELD IN CHICAGO, MARCH 1, 1924

A special meeting of the Dental Faculties' Association of American Universities was called to order at 10 a.m., March 1, 1924, by the president, Dr. Owre, in the Drake Hotel, Chicago, Illinois.

Membership universities were represented as follows: Columbia, Dr. L. M. Waugh; Illinois, Dean F. B. Moorehead; Minnesota, Dean Alfred Owre; Nebraska, Dean G. A. Grubb; Ohio, Dean H. M. Seamans; Pennsylvania, Dean C. R. Turner; Tufts, Dean William Rice; Washington University, Dean W. N. Bartlett.

Minutes of the meeting at Iowa City were read. On motion the minutes were laid on the table to be taken up at pleasure for certain corrections.

The meeting went into a discussion of the topic of the editing and publishing of the minutes of the Association.

After some discussion, Dr. Turner offered the following resolution:

WHEREAS, it is the unanimous opinion of the members of the Dental Faculties' Association of American Universities, assembled in Chicago, that the publication of the proceedings of its meetings from its organization to the present time would be a desirable and proper contribution to the history of the development of dental education during the past fifteen years, and in justice to the Association will show the part taken by it in the development.

*Now, therefore, be it resolved,* That a committee of three, with Dean Alfred Owre as chairman, be appointed to edit the minutes and proceedings of the Association, and to publish the same in suitable form.

On motion the resolution was adopted.

A general discussion followed as to the purpose, form, and contents of the proposed publication.

It was brought out that since there had been criticism of the Association for not publishing its proceedings, it was desirable to get them out as quickly as possible. They were to be published in a somewhat informal manner, with much routine matter eliminated; an historical prolog was to be included, and other material necessary to make an intelligible document, free from propaganda. It was suggested that all references to institutions that have not enjoyed membership be deleted, unless such schools be given an opportunity to concur in that part of the record.

Dr. Turner and Dr. Smith were elected to the committee on minutes.

In a general discussion of the probable cost of printing and distributing the proceedings, it was agreed that the amount left in the treasury after all bills were paid (about $700) would be wholly inadequate. After further discussion it was unanimously agreed that, since to levy dues for 1924 might give a semblance of continuity to the organization after it had formally disbanded to become part of the American Association of Dental Schools, such dues should not be assessed.

The possibility of a pro rata assessment to finance the publishing of the minutes was considered. The matter was then laid on the table till the afternoon session.

It was brought to the attention of the Association that Drs. Smith and Rice had not received expense money for their trip from Boston to New York as members of the committee to confer with representatives of the Carnegie Foundation with regard to the survey of dental education. It was voted that they should be reimbursed for the expenses of this trip.

The meeting adjourned till two-thirty o'clock.

At the afternoon session Dr. Turner and Dr. Owre reported for the committee on consolidation. Dr. Turner reported to the effect that the committee met with a like committee from each of the other three groups, and in conformity with instructions from the Dental Faculties' Association of American Universities, proposed and submitted a written constitution and by-laws for the consideration of the delegates from the four organizations. He reported further that this proposed constitution and by-laws was in conformity with the suggestions made by the Dental Faculties' Association of American Universities, just preceding the appointment of the committee on consolidation. (See minutes of Iowa City meeting, p. 114.) Dr. Owre reported that the delegates from the four groups met at Cleveland, Ohio, during the session of the American Dental Association, adopted the proposed constitution and by-laws, and proceeded to organize thereunder.

On motion the report of the committee was accepted.

Dr. Owre and Dr. Turner reported for the meeting of the executive committee held December 16, 1923, in Chicago. Dr. Owre, reporting on the events leading up to the meeting of the executive committee, stated (1) that he had tried to call a meeting of the whole Association, but had been unable to arrange it; (2) that he at first understood that there *would* be a meeting of the whole Association, when he had agreed to be present, but that he later learned it could be only the executive committee; (3) that after he had agreed to be present he was prevented by an imperative call from a committee of the Dental Educational Council for a special meeting which could not be postponed. Dr. Turner, continuing the report, stated (1) that the executive committee had agreed unanimously that there should be a meeting of the American Association of Dental Schools, (2) that the committee had discussed the advisability of adopting the second predental year; (3) that Dr. Augustus Downing had suggested it might be advisable for him to call a conference of the presidents and deans of those colleges interested in raising the requirements of dental education. (Dr. Downing had not called this conference, for reasons he would present when he arrived.)

A discussion of the future of the Association followed. It was unanimously agreed that it was desirable to disband the organization. The members present all expressed regret at the consequent loss of fellowship and stimulus toward progress heretofore afforded by the meetings of the Association.

Dr. Turner reported that in 1925 thirty of the forty-two dental schools of America would require one predental year as a minimum.

A motion was made by Dr. Turner, supported by Dr. Rice, that when the Association adjourned it adjourn *sine die*. The motion carried.

A discussion of the curriculum followed. Dr. Owre classified orthodontia as orthopedic surgery, declaring both should be taught as an advanced specialty after two years of predental work and three years of dental training.

The resignation of Dr. Marcus L. Ward as secretary-treasurer was presented. On motion it was voted that, since it was upon the earnest request of Dr. Ward,

the resignation be accepted with regret and an expression of appreciation of his work as secretary of the Association.

On motion, Dr. G. A. Grubb was elected permanent secretary of the Association until such time as the Association elected to adjourn.

The discussion reverted to the method of financing the editing and publishing of the minutes. After considerable discussion, it was moved and carried that the special committee for editing and publishing the minutes investigate the cost of producing the volume, and by mail ballot find out whether each member of the Association is willing to meet the pro rata cost of publication; and that at such time the committee proceed upon its own judgment, on condition that all the money in the treasury, after all bills are paid, be applied to this specific purpose and no other. This motion was understood to include provision for the disposition by the committee of majority or minority votes on any portion of the proposed edition of the minutes.

Motion was made and carried that Dr. M. L. Ward be instructed to turn over the balance in the treasury to Dr. C. R. Turner as custodian of this fund to be used by the committee on minutes.

A motion was made and carried that the Association adopt the minutes of the meeting at Iowa City in January, 1923, with instructions to add the resolution by Dr. Gies and the motion directing the committee on consolidation to report back their work to the Association for confirmation.

President Owre spoke impromptu for ten minutes on the things the Association had accomplished since its organization fifteen years before and of the fellowships and lasting friendships that had been formed among the members.

Motion was made by Dr. Rice, supported by Dr. Turner, that the meeting adjourn *sine die*. The motion was carried.

# APPENDIX

## IS THERE AN EDUCATIONAL PROGRAM IN DENTISTRY?

CHARLES R. TURNER, D.D.S., M.D.

To amplify the question raised by the title of this paper, we may pertinently inquire whether any definitely formulated plan by which the course of professional education in dentistry is to develop within the near and less remote future has been put forth as representing the wise and mature judgment of those elements of our profession who should be concerned in shaping it. To such a query I suspect we shall be compelled to answer in the negative. No program of this nature with any very distant objective has been formally promulgated by any large or important group of our profession, none has been adopted by our national bod', none has been presented by any of the educational associations themselves. Forward-thinking men have constantly given thought to the future devlopment of the profession and in the minds of many of them are well-defined ideas as to how it should proceed. Furthermore, within the past few years, a number of accomplished facts have marked very definite steps in the advance of the educational process, and the tendencies so manifested are assuming a very definite direction. By a careful analysis of these recent tendencies and an interpretation of their significance, we can make out very clearly the whither of it all, and I think we may even at this time pretty clearly chart out the course and define the main objective of the future process in dental education. If such could be done at this time, it seems to me very desirable, for a concrete program can be more speedily accomplished than if it is permitted to develop in a haphazard fashion. The obstacles and objections which inevitably arise to delay the program can be more fairly met and disposed of, and the slow process by which any advance is brought about may be hastened by securing an agreement to the principle involved, so that each step will not require a separate effort to accomplish it.

It goes without saying that, while we may be gratified at the great advances in the training of our new graduates, and may even contemplate with some satisfaction their present standing as compared with what it was a short time ago, none among us feels that dentistry has reached its goal in this particular. It must continue to advance and that advance must be in the direction in which the dental practitioner will become qualified to render better service

to the public whom he serves. He cannot go any farther than he knows, nor do better than his training and experience enable him to do, but it should be his ideal to do this much. Similarly the education and training of the dentist should be the best that our knowledge of this field shows us that they should be and nothing less. Again, none among us would say that, at present, our educational processes are fully abreast of what our judgment tells us they should be. We are not doing as much as we know. If we *know*, should we not hasten to *do* as rapidly as possible? We cannot do immediately all we know should be done, but we can adopt a program by which this may be brought about as rapidly as possible without upsetting the existing educational machinery. For these reasons a sane educational program to embrace the full extent of our present knowledge should be formulated and promulgated. No one can fail to interpret the tendencies which have been manifested in dental education in the last few years as moving in any direction but toward a closer union with the mother science of medicine. The significant advances in the profession for some years now have been in the fields which are equally important in general medicine. Dentistry must develop in conformity with medicine and in association therewith. There is no other direction in which it can develop. The evidence of this tendency as it relates to the educational system lies in the establishment of a four-year course; in the improvements in the teaching of bacteriology and the establishment of courses in general pathology and in physiological chemistry, and in the broadening of the courses in anatomy and physiology, particularly with respect to laboratory instruction, to the equivalent of those given to medical students, and by the requirement for admission for the next session of a year's work of college grade in which are included the basic sciences formerly given in the first year of the dental course. The requirement of two years of predental work approved by the Dental Faculties' Association of American Universities, to become operative in 1926, will place the preliminary education of dental students on a parity with that in medicine. Thus it will be seen that the tendencies discernible in dental education group themselves under two headings: an advance in preliminary education, and a strengthening of the dental course in the fundamental medicine sciences.

The predental year will be required by all the schools save one of the Dental Faculties Association of American Universities for admission in September next, by the schools in New York State in accordance with the regulation of the Board of Regents, and by Northwestern University Dental School, a total of fourteen institutions. Columbia University already requires two years. The predental year has been optional in the University of Minnesota for a year past. Western Reserve University Dental School has announced the requirement of the college year for admission in 1922.

The Board of Dental Examiners of North Carolina has announced that in order to be eligible for examination for license to practice dentistry in that state, after 1930 applicants must present credit for two years of college work besides the dental course, and Pennsylvania will require the predental year for all schools in 1925, by recent action of the Dental Council of America.

All these facts show a definite tendency toward the prescription of adequate preparatory education for the students of our profession. When the two-year requirement is in operation, it will provide for the necessary instruction in the three basic sciences, physics, chemistry, and biology, with the desirable additions of English and modern foreign language, relieving the dental course of the former subjects and thus providing more time and opportunity for the strictly basic medical sciences. It will also have definite value as a measure of liberal education, which, when followed by those elements of cultural worth contained in the dental curriculum, will provide a proper basis for dentistry as one of the learned professions. This program is as educationally sound for dentistry as it is for medicine and in the latter it is already firmly established.

The only arguments advanced by the opponents of the increased admission requirement are based upon economic grounds. They maintain that it will reduce the number of graduates below the annual needs of replenishment and the normal increment necessary to meet the growing demands of dental service by keeping out of the profession those who are unable or unwilling to undertake the lengthened course. It is obvious that some reduction in classes would follow and also that eventually some of the poorer schools would go out of existence and further decrease the total number of graduates. While we must admit the partial validity of these arguments, the probable effect is exaggerated and the arguments are not as altruistic as they sound. At its meeting in New Orleans in 1919, the National Dental Association put itself on record as opposed to the predental year at that time, a decision taken without due consideration of all phases of the matter and upon the basis of the above argument. Two phases of this matter may be discussed: the smaller number of persons entering the profession and the decrease in our educational facilities.

It is certain that some reduction in numbers will immediately ensue upon the lengthening of the course. The process by which the latter is to be done must be gradual, but it will not take as long as in medicine for the ground has already been broken and college preparation for

all the learned professions is now an accepted fact. The period of reduction in classes will, undoubtedy, be of shorter duration than occurred in medicine. At the present time there are now matriculated in colleges of liberal arts and science more men and women than can be admitted to the better medical schools they aspire to enter, and it will not be long before any dental school that is qualified to deliver the right sort of education will find its matriculation normal. The schools which do not come up to the desired standard will, undoubtedy, be deserted, for a more critical choice of a school will be the result of better preparatory education of applicants.

In the recognition of our obligation to the public to provide dental service, it must be remembered that this is expressed not only in a greater need for dentistry, but in the constantly growing demand for better dentistry. Our real duty is not only to provide more dental service but that this greater service must be of the highest grade, for we know too well that poor dentistry is often worse than none at all. The real economic probem involved in the whole matter is not that of maintaining the old inadequate dental service, but of increasing the facilities for the new. It is not one for the educators, for it is their function to determine what dental education should be, while philanthropists, educational foundations, or economists are really the experts who should deal with providing the educational institutions wherein more fully trained dentists can be obtained. It cannot be denied that the better educated a profession is and the better the standing of the practitioners, the greater attraction it offers to those considering the choice of a calling. The number of prospective students unable to take the lengthened course for economic reasons will be increased, but there will be an increase in the number attracted to the profession, and these will be of a higher type.

A second well-defined tendency in dental education clearly indicates the nature of the relationship it is likely to sustain to medicine. Those who would have the dentist of today graduate in medicine, or who wish to expand the dental course to include all or nearly all of general medicine are in a small minority.

Kirk[6] interpreted these tendencies in dental education in 1914 in his address before the Sixth International Dental Congress, and advanced the opinion "that because of the practical impossibility of combining the present medical curriculum with the present dental curriculum so as to train, in view of the present economic conditions, the dental practitioner to the best advantage, our obvious course is so to enlarge the scope and improve the character of the special dental curriculum as adequately to meet modern educational demands. This course should be followed until the time arrives, as I believe that time inevitably will, when there shall be brought about by the evident specializing tendency in medicine today a reorganization of the medical curriculum by which sufficient length of time will be devoted to the training of men in all of the sciences that are fundamental to the entire field of healing, at the termination of which phase of the curriculum there should be granted a mark or degree educationally equivalent to the Bachelor's degree in science or letters, and from the point of attainment of this Bachelor's degree in medicine the student may specialize in groups of studies that will make him an efficient practitioner in some recognized special department of medicine, at the termination of which he will have conferred upon him his doctorate or licentiate, and then be licensed to practise only within the limits of the speciality for which he has been trained."

He adds later, "If such a reorganization of the medical curriculum as I have referred to shall ultimately arrive, then dentistry will be fully equipped and qualified to take its place and rank along with the sister specialities of the healing art."

The present science of medicine is too comprehensive for its own graduates to obtain in four years more than a general foundation, and it would be economically unsound to compel the dentist to acquire so much of no direct value to him. But the dentist should have the same or equivalent training in the basic medical sciences, and enough of general medicine itself to enable him to recognize diseases and conditions of a general type which have any relationship whatsoever to his special field. He should be fully capable of dealing with all the general and special matters arising in connection with the teeth and jaws. In this manner he will be trained as a specialist in this branch of medicine in the most logical fashion and will not be wasting time and energy in acquiring knowledge without relationship to his own proper work.

If we are correct as to the meaning of these two major groups of facts, they form the basis for a logical program for our educational institutions. It would seem wise that such a program shall now be put into definite form and promulgated and the support of the profession asked for it. The following program is based upon present facts and the above conclusion:

A. The progressive elevation of the educational standard for admission so that the requirement for matriculation in dental schools shall be identical with that for entrance to medical schools of the first grade, and that this shall become operative in all schools not later than 1930.

B. The inclusion in the first two years of the dental curriculum of courses in anatomy, histology and embryology, physiology and physiological chemistry, bacteriology and general

[6] *Transactions, Sixth International Dental Congress*, p. 11.

pathology, and materia medica, identical with, or equivalent to, the courses in these basic sciences offered in medical schools of the first grade.

C. The inclusion of courses in operative and prosthetic technics in the first two years as basic to the training in clinical practice.

D. The third and fourth years to be devoted to the special pathology and therapeutics of dentistry, to the principles of surgery and the special surgery of the mouth, teeth, and associated parts, to the principles of operative and prosthetic dentistry with abundant opportunities for clinical practice, to radiography, to anesthesia, to a fundamental course in orthodontics, to a course in general medicine designed to cover all the general medical relationships of dentistry, and to courses in ethics, economics, jurisprudence, and history.

E. The rapid establishment of more schools for the training of dental hygienists and an increase of the training of dental mechanics in a larger number of orthodox schools, and an extension of the field of trained assistants, such as radiographic and bacteriologic technicians, office assistants, etc., to increase the actual efficiency of the individual dentist.

# CONSTITUTION AND BY-LAWS

## As Adopted in Philadelphia, June 5, 1909

### Preamble

We, the representatives of University Dental Schools, realizing the need of active and uniform progress in the standards of Dental Education in America, hereby organize a University Dental Faculties' Association, for the promotion of Dental Education.

### ARTICLE I
### Name

This organization shall be known as The Dental Faculties' Association of American Universities.

### ARTICLE II
### Object

The object of the Association shall be—To promote dental education; to improve the standard of preliminary education required for admission to dental schools; to establish reciprocal educational relations with its members, and ultimately to establish a national standard which may serve as the basis for a reciprocal interchange of dental licenses among the several states.

### ARTICLE III
### Membership

Section 1. The membership of this Association shall be limited to dental schools which are an integral part of state universities or of chartered universities of equal standing of the United States of America holding membership in the Association of American Universities, or accepted by the Carnegie Foundation for the Advancement of Teaching, demanding graduation from accredited high schools that require not less than four years of high school work, or the equivalent amount of education, for matriculation.

Sec. 2. All applications for membership must be filed with the secretary at least ninety days before the next regular meeting of the Association, and shall be referred at once to the executive committee, who shall report thereon at the next regular meeting of the Association.

Sec. 3. A unanimous recommendation of the executive committee shall be required to make an applicant eligible for membership. A two-thirds vote of all members shall be required to elect.

Sec. 4. Each member of this Association shall have certain inalienable rights, including its business management, methods of pedagogy, and control of its internal affairs with relation to its parent institution, which shall not be revoked.

Sec. 5. No special or exclusive rights or privileges shall be granted to any member which may not at any time be altered or revoked.

### ARTICLE IV
### Distribution of Powers

The functions of this Association shall be divided into executive and educational.

### ARTICLE V
### Officers

Section 1. The officers shall consist of president, vice-president, and secretary-treasurer, who shall be elected by a majority vote at the annual meeting of this Association, and they each shall hold office for one year from the date of their election or until their successors shall have qualified.

*Duties of Officers*

SEC. 2. The president shall preside at all meetings, and shall have a vote on all questions, but having so voted is not qualified to cast a deciding vote in case of a tie; shall appoint all committees not otherwise provided for; shall see that all resolutions are faithfully executed; shall have power to fill vacancies in office until the next regular election, subject to the approval of the executive committee; shall at the annual meeting render a report of the condition of the Association and make such recommendations as he deems necessary, and shall perform such other duties as pertain to his office.

SEC. 3. The vice-president shall perform the duties of the president in his absence.

SEC. 4. The secretary-treasurer shall keep a correct record of all official acts of the Association, such records to be open to the inspection of members at reasonable times; shall edit and publish the annual proceedings of this Association, which shall contain—This constitution, all rules, all resolutions submitted previous to, or at, the annual meeting, and the action taken upon the same, list of officers, standing and special committees and their reports, and such other matter as may be deemed important, all of which shall be approved by the executive committee before publication.

Shall submit a budget of estimated revenue and expenditures for the ensuing year to each member, sixty days before the annual meeting;

Shall conduct a bureau of general information pertaining to dental educational matters throughout the world, including reports of boards of dental examiners, announcements of dental colleges, state laws, foreign dental colleges and preparatory schools, and all information of value to this Association;

Shall keep a file of all official correspondence of the officers of this Association, and replies thereto, and shall perform such other duties as pertain to his office;

Shall receive all fees and pay all bills, but only upon the authority of the executive committee or of this Association. Shall submit a detailed statement of all receipts and disbursements at each annual meeting;

Shall receive a salary of————————————for his services, payable annually; and

Shall render a report of his office at the annual meeting.

SEC. 5. The executive committee shall consist of the president ex officio and two other members elected at the first regular meeting of this Association, one of whom shall be elected for a term of one year and one for a term of two years, and at each regular meeting thereafter one member shall be elected to fill the vacancy.

*Duties of Executive Committee*

The executive committee shall manage the business affairs of this Association during the interim between the annual meetings;

Shall designate the time and place of meetings;

Shall call all special meetings at the request of one-third of the members, designating the object of said meeting;

Shall direct the secretary-treasurer to publish notices of all meetings in such journals as it deems advisable, at least sixty days before said meeting;

Shall audit the books and accounts of the officers of this Association; and

Shall render a report of its acts to the Association at the annual meeting.

## ARTICLE VI

### FISCAL YEAR

The fiscal year of this Association shall be from July 1 to June 30, inclusive.

## ARTICLE VII

### EDUCATIONAL DEPARTMENT

SECTION 1. The educational committee shall consist of the president ex officio and three other members, one elected for one year, one for two years, and one for three years, and at each annual meeting one to be elected for three years to fill the vacancy. This committee shall select its own chairman.

*Duties of Educational Committee*

The educational committee shall review all announcements of members of this Association;

Shall outline a preparatory course of study for matriculation, suggesting what subjects should be required and what subjects elective;

Shall advise as to the number of conditions allowable for matriculation;

Shall advise as to uniformity of curriculum, length of the sessions, and system of examinations, markings, and grades of scholarship;

Shall advise as to the conditions of promotion and admission to advanced standing;

Shall advise as to the standing of foreign preparatory and public schools and colleges, and foreign dental colleges;

Shall review all text and reference books;

Shall review foreign and American dental laws and educational measures; and

Shall determine the comparative value of the curriculum of other dental colleges not members of this Association.

*Standard of Preliminary Education*

SEC. 2. No person, except one presenting a certificate of graduation from a high school giving a four years' course of study, or who presents credentials which give evidence of an equivalent scholastic preparation, is eligible for matriculation in any college a member of this Association, without taking an examination given by an examiner indorsed by this Association.

## ARTICLE VIII

### FEES, FINES, ETC.

SECTION 1. The expense of the annual meeting shall be borne by this Association in a manner determined at the annual meeting, except that no member shall receive mileage or compensation from the Association.

SEC. 2. The annual membership fee of this Association shall be fifty dollars.

SEC. 3. No assessments shall be levied against the members of this Association except by majority vote at the annual meeting.

## ARTICLE IX.

### ENFORCEMENT OF RULES

The enforcement of rules governing this Association shall be entrusted to the executive committee with power to act, subject to revision by the Association at its next annual meeting.

## ARTICLE X

### REPRESENTATION

SECTION 1. Each member of this Association shall be entitled to one representative, recommended by his faculty and duly authorized by his university, who shall be the voting member. In his absence a duly qualified alternate may be substituted by such voting member in writing.

SEC. 2. Other members of the faculties of the colleges which are members of this Association may be present at all meetings as delegates and take part in the discussion, and no other person shall be present without a majority consent of the Association.

SEC. 3. All delegates are eligible for office.

## ARTICLE XI

### RESOLUTIONS

SECTION 1. All matters to be presented to this Association for its action must be submitted in the form of a resolution in writing, and all resolutions of a general nature, approved by this Association, shall have a uniform operation.

SEC 2. Except by unanimous consent at the annual meeting, no resolution shall be enacted unless it shall have been presented in writing to all members at least sixty days before said meeting.

## ARTICLE XII

### AMENDMENTS

Amendments to the constitution and by-laws must be filed with the secretary-treasurer at least ninety days before the annual meeting and be submitted by him immediately thereupon to all members, and said amendment may be presented for final action at such annual meeting. A two-thirds majority vote will be required to pass such amendment.

## ARTICLE XIII

### QUORUM

Two-thirds of the regular voting members shall constitute a quorum.

## ARTICLE XIV

### ORDER OF BUSINESS

1. Filing of credentials and payment of fees
2. Roll-call of members
3. Reading minutes of previous meeting.
4. President's report
5. Secretary-treasurer's report
6. Report of executive committee
7. Report of educational committee
8. Reports of special committees
9. Unfinished business
10. New business
11. Election of officers
12. Final reading of minutes
13. Adjournment

# STANDING RESOLUTIONS

*Resolved,* That the minimum standard of four years' high school education now required for admission to the schools of this Association shall be as defined by the regents of the University of the State of New York—this to include one year of work in chemistry; the requirement in chemistry to take effect in 1912-13.—*March 8, 1911.*

*Resolved,* That schools or colleges of dentistry that are integral part of, and under the direct supervision of, universities accepted by the Carnegie Foundation for the Advancement of Teaching may be eligible to hold membership in the Dental Faculties' Association of American Universities.—*March 8, 1911.*

*Resolved,* That in all cases of transfer from one school to another, the dean of the school transferring the student shall accompany the transfer with a letter giving full particulars as to the general character and value of the man and his work, and shall also state whether the student has been honorably dismissed.—*January 22, 1912.*

*Resolved,* That graduates of dental schools not holding membership in this Association may be admitted to the senior year in schools holding membership in this Association, provided that their preliminary training is equal to the training required for the admission of students to our university schools; and they may become candidates for graduation after fulfilling the requirements of the senior year, provided that they pass examinations on all the subjects that are final in the first and second years of the course before coming up for final examination for the degree.—*March 21, 1914.*

# CONSTITUTION AND BY-LAWS

As Revised in Montreal January 22, 1922

## ARTICLE I

### Name

This organization shall be known as the Dental Faculties' Association of American Universities.

## ARTICLE II

### Object

The object of the Association shall be to promote dental education in accord with university ideals; to improve the standard of preliminary education required for admission to dental schools; to establish reciprocal relations with its members; to establish a national standard which may serve as the basis for a reciprocal interchange of dental licenses among the several states, and to initiate such other activities as from time to time seem advisable.

## ARTICLE III

### Membership

Section 1. The membership of this Association shall consist of active and honorary members.

Sec. 2. The active membership of this Association shall be limited to well-recognized dental schools which are integral parts of state universities, of chartered universities, and institutions of equal standing in America, which maintain well-recognized literary colleges and medical schools.

Sec. 3. Hereafter no dental school will be eligible for election to active membership in this Association unless it maintains minimum qualifications for admission equal to those required for matriculation in a majority of the institutions composing this Association.

Sec. 4. All applications for active membership should be filed with the secretary at least ninety days before the next regular meeting of the Association, and referred at once to the executive committee who shall report thereon at the next regular meeting of the Association. The Association may, however, by a two-thirds vote of all members recognize an application for membership that is filed less than ninety days previous to a regular meeting and appoint a committee to examine the school and report at the following regular meeting. A two-thirds vote of all members of the Association shall be required to elect.

Sec. 5. The Association may elect to honorary membership persons holding official position in institutions directly or indirectly related to dental education. Honorary members may enjoy all the rights and privileges of active members and shall not pay any dues.

Sec. 6. Each member of this Association shall have certain inalienable rights, including its business management, methods of pedagogy, and control of its internal affairs with relation to its parent institution, which shall not be revoked.

## ARTICLE IV

### Distribution of Powers

The functions of this Association shall be divided into executive and educational.

## ARTICLE V

### Officers

Section 1. The officers shall consist of president, vice-president, and secretary-treasurer, who shall be elected by a majority vote at the annual meeting of this Association, and they each shall hold office for one year from the date of their election or until their successors shall have qualified.

### Duties of Officers

Sec. 2. The president shall preside at all meetings, and shall have a vote on all questions, but having so voted is not qualified to cast a deciding vote in case of a tie; shall appoint all committees not otherwise provided for; shall see that all resolutions are faithfully executed; shall have power to fill vacancies in office until the next regular election, subject to the approval of the executive committee; shall at the annual meeting render a report of the condition of the Association and make such recommendations as he deems necessary, and shall perform such other duties as pertain to his office.

Sec. 3. The vice-president shall perform the duties of the president in his absence.

Sec. 4. The secretary-treasurer shall keep a correct record of all official acts of the Association, such records to be open to the inspection of members at reasonable times; shall edit and publish the annual proceedings of this Association, which shall contain all resolutions submitted previous to or at the annual meeting, and the action taken upon the same, list of officers, standing and special committees and their reports, and such other matter as may be deemed important, all of which shall be approved by the executive committee before publication;

Shall submit a budget of estimated revenue and expenditures for the ensuing year, at the annual meeting;

Shall keep a file of all official correspondence of the officers of this Association, and replies thereto, and shall perform such other duties as pertain to his office;

Shall receive all fees and pay all bills, but only upon the authority of the executive committee or of this Association. Shall submit a detailed statement of all receipts and disbursements at each annual meeting;

Shall receive a suitable honorarium for his services, payable annually; and

Shall render a report of his office at the annual meeting.

Sec. 5. The executive committee shall consist of the president ex officio and two other members elected at the first regular meeting of this Association, one of whom shall be elected for a term of one year and one for a term of two years, and at each regular meeting thereafter one member shall be elected for two years to fill the vacancy.

### *Duties of the Executive Committee*

The executive committee shall manage the business affairs of this Association during the interim between the annual meetings;

Shall designate the time and place of meetings;

Shall call all annual and special meetings, designating the object of said meeting;

Shall direct the secretary-treasurer to send notices of the annual and all special meetings;

Shall audit the books and accounts of the officers of this Association; and

Shall render a report of its acts to the Association at the annual meeting.

## ARTICLE VI

### Fiscal Year

The fiscal year of this Association shall be from July 1 to June 30, inclusive.

## ARTICLE VII

### Educational Department

The educational committee shall consist of the secretary-treasurer ex officio and three other members, one elected for one year, one for two years, and one for three years, and at each annual meeting one to be elected for three years to fill the vacancy. This committee shall elect its own chairman.

### *Duties of Educational Committee*

The educational committee shall review all announcements of members of this Association;

Shall outline a preparatory course of study for matriculation;

Shall advise as to uniformity of curricula, length of the sessions, and systems of examinations, markings, and grades of scholarship;

Shall advise as to the conditions of promotion and admission to advanced standing;

Shall advise as to the standing of foreign preparatory and public schools and colleges, and foreign dental colleges;

Shall review all text and reference books;

Shall review foreign and American dental laws and educational measures; and

Shall recommend the comparative value of the curricula of other dental colleges not members of this Association.

## ARTICLE VIII

### Fees, Etc.

Section 1. The expenses of this Association shall be borne in a manner to be determined at the annual meeting, except that no member shall receive mileage or compensation from the Association for attending an annual meeting.

Sec. 2. The annual membership fee of this Association shall be fifty dollars.

Sec. 3. No assessments shall be levied against the members of this Association except by majority vote at the annual meeting.

## ARTICLE IX

### Representation

Section 1. Each member of this Association shall be entitled to one representative, recommended by his faculty and duly authorized by his institution, who shall be the voting member. In his absence a duly qualified alternate may be substituted by such voting member in writing.

Sec. 2. Other members of the faculties of the colleges which are members of this Association may be present at all meetings as delegates, and take part in the discussion. No other person shall be present without a majority consent of the Association.

Sec. 3. All delegates are eligible for office.

## ARTICLE X

### Resolutions

All matters to be presented to this Association for its action must be submitted in the form of a resolution in writing, and all resolutions of a general nature, approved by this Association, shall have a uniform operation.

## ARTICLE XI

### Amendments

Amendments to the constitution and by-laws must be filed with the secretary-treasurer at least sixty days before the annual meeting and be submitted by him immediately thereupon to all members, and said amendment may be presented for final action at such annual meeting. A two-thirds majority vote will be required to pass such amendment.

## ARTICLE XII

### Quorum

Two thirds of the regular voting members shall constitute a quorum.

## ARTICLE XIII

### Order of Business

1. Filing of credentials and payment of fees
2. Roll call of members
3. Reading minutes of previous meeting
4. President's report
5. Secretary-treasurer's report
6. Report of executive committee
7. Report of educational committee
8. Reports of special committees
9. Unfinished business
10. New business
11. Election of officers
12. Final reading of minutes
13. Adjournment

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Minutes and proceedings, 1908